INPUT MANAGEMENT IN DAIRY CO-OPERATIVES OF OLLUKKARA BLOCK

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THESIS

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DECLARATION

I hereby declare that this thesis entitled **Input Management in Dairy Co-operatives of Ollukkara Block** is a bonafide record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree diploma associateship, fellowship or other similar title of any other University or Society

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CERTIFICATE

Certified that this thesis, entitled "Input Management in Dairy Co-operatives of Ollukkara Block" is a record of research work done independently by Mr. George Thomas under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associateship to him

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Introduction

INTRODUCTION

For any Indian a theist or an atheist, cow is an undisputed God, and feeding her is then a devotion Our mythology and history speak volumes on cattle rearing The elders of this land start educating their children with the story of Gokulam - a vibrant cattle-based economy, where even Lord Krishna was a Gopalan Interestingly enough, Kamadhenu symbolises all what is prosperity The emergence of dairy farming as an economic activity came more into focus at the instance of ancient rulers for many of whom the strength of their cattle was a sign of royal might and prestige Hence for the people of our nation, dairying is of manifold importance At the inner corner of their mind it is a religious sentiment then it is a cultural heritage finally it is a source of income as also nutrition

India, thanks to her many historical social, cultural and religious reasons, happens to be a country with the highest bovine population Yet the productivity of these animals has fallen short of world standards A presumable reason for this paradox is the lack of a commercial orientation among Indian farmers who maintained dairy animals in tune with their cultural and religious ethos For them

rearing animals was no burden, and an economic exploitation was no intention

However there existed right from the dawn of human civilization, a crop cattle linkage and co existence wherein the crop shared a part of animal feed and the animal in turn supplied drought power and manure to crop - a cycle that man has been effectively utilising in quest for his sustenance There was hardly any trade potential for milk though it was a common ingredient in everybody s daily diet

The reckoning that dairy farming can be a sound commercial activity rather than a mere cultural or religious sentiment is not more than seven decades old It took years more for the matter to find its expression in the policy documents of governments The initial policy initiatives were in the form of government-run dairies, veterinary clinics etc In the mean time, the co-operative form of organization started expanding itself to cover the dairy farmers in their efforts to find suitable market for milk It was only in 1970, the Operation Flood-I a major policy initiative, was launched and the government started looking upon dairy farming as a strategy for rural development

The first phase of the programme culminated in a positive note leaving apparent signs of resurgence in the

dairy industry during the seventies the Operation Flood II was embarked on in October, 1979 The strategy of Operation Flood was two-pronged On the one hand it aimed at augmenting the production and productivity of milk by employing hybrid cattle fed with quality feed, and on the other it targeted to find an appropriate market by raising the level of urban demand for milk and milk products An organizational framework was thus moulded to suit the implementation of the said strategy with primary co-operatives at the grass root level affiliating themselves to a union in the intermediate level and the unions in turn forming the state level federation which is under the overall control and direction of the National Dairy Development Board

Coupled with these initiatives the programme of Integrated Rural Development (IRDP) delivered its share in the process of dairy development Among the viable projects identified and funded by banks under IRDP loans for dairy farming topped the list A natural fall-out of these efforts was an immediate rise in the production and marketing of milk leading to the euphoria that Operation Flood programme is all triumph It was but a myopic assessment One may not find it hard to realise that the sudden rise in the production of milk was only the natural outcome that the programmes of Integrated Rural Development and Operation Flood brought forth Only

with questionable credibility can it be called a success story until time testifies to it In fact it was only a portent of what were to be done if the initial enthusiasm were to stay

The best policy perceptions at this juncture would have been to grapple with three important questions Has the programme implemented fully and clearly all it was expected to in the areas of production and marketing? Was there any match between the existing level of inputs and the expected level of output? To what extent the economics of milk production favoured the farmers cause? Such an evaluation would have benefited in ensuring the long standing success of IRDP and Operation Flood at farmers' level and not merely at the level of the implementing agencies

Many evaluative studies have lauded the performance of Operation Flood in the area of milk marketing These studies keep a dubious silence on the contribution of the programme to the input requirements of farmers In a way, almost all including the planners and the academics were under an impression that the main aim of Operation Flood as a programme of dairy development was to find a suitable market for milk and milk products This is particularly evident from the fact that even the academics in their hasty attempts to appraise the Programme, gave predominance to the marketing function As such a number of studies emerged in this area, while an

apparent dearth of research effort was observable on the area of input management by dairy co-operatives A re examination, at least in this eleventh hour, on how well the dairy co-operatives have fared in expediting the input management functions will be of no small importance

The state of affairs in Kerala

The second phase of the Operation Flood programme covered the state of Kerala This, along with all other past and ongoing dairy development efforts helped our state make some headway in improving the plight of milk farmers through co-operative efforts It may well be claimed that a steady market has been developed for milk produced in any distant corner of the state The effective operation of the co operative network, its daily operated milk routes and dairy and chilling plants made the perishability of milk no impediment and concern for farmers to produce more

However, the profitability of the operation acts, today, as a disincentive to dairy farmers The enthusiasm generated by the implementation of Operation Flood gets vanished on this account Despite the tall claim of the co-operative sector, the fact remains that there exists a growing mismatch between the cost and the return of dairying much to the disappointment of farmers The results of the pilot study

conducted in connection with the present one as also a research expedited almost in the same period and area by Sreejith (1994) prove that the net margin of dairy farming is negative It is also interesting to note that many researchers hastily concluded their studies on the economics of milk production as and when they struck a positive gross margin, leaving the net margin unexplored The diminishing profitability calls for urgent attention on ways and means to reverse it

There are only two ways for improving the farmers margin Either the producers price for milk should be increased or the cost of production should be reduced For effecting the former it is inevitable either to increase the consumers price or to reduce the operational and managerial costs of dairy co-operative network Regarding this second option anything said at this juncture will be premature pending an enquiry The feasibility of the first option is under severe strain especially for reasons of consumers opposition and government s disagreement besides the political consequences of such a decision Nonetheless there is no guarantee that an increase in the consumers price will result in a similar increase in the producers price as can be drawn from a recent experience It may be difficult to stomach that in the month of F a y 1994 the co operative

network dared increase the consumers price per litre of milk by Re 1 with a simultaneous reduction in the producers price almost to the same magnitude (See for details the Mathrubhumi Daily 03 09 19) When the researcher personally verified the authenticity of this report with the secretaries of the societies included in this study,it was learnt that the farmers price was reduced by 30 paise per litre of milk) This event is so strangely unique in the history of dairy co operatives in Kerala It is for the first time (as far as information is available) that the producers price has been reduced and on all previous occasion, at least there was a less than proportionate increase in producers price with every increase in consumers price This incident amply proves the inability of co-operatives to increase the producers price in the present circumstances

Given the situation, it is needless to say that the only possible way to increase the farmers margin is to venture with measures of cost reduction in milk production Here comes the significance of input services from dairy co-operatives to the farmers Overlooking this compelling necessity is bound to result in the abrupt collapse of the dairy co-operative movement in the state

The acuteness of the matter takes a higher plane when we realise that the availability of feed is getting reduced day by day It is worth remembering here that feed is the critical input factor in milk production with a share of more than 70 per cent in the total production cost (Refer review of literature given subsequently) Feed availability is on the decline because of multiple reasons One of the reasons is the reduction in natural fodder and pasture land consequent on the ever increasing population Another reason which aggravates the problem is the insufficient production of hay Its production is seriously hampered by the decrease in paddy cultivation in the state on the one side and higher use of High Yielding Variety (HYV) seeds on the other It is the farmers experience that when traditional variety seeds are used, the height of the crop and hence the production of hay is more compared with that produced from the same area when HYV seeds are used

Another disturbing problem is the ever soaring price of concentrates The price level has been reflecting an upward trend in the case of feed manufactured by both the private sector and the co-operative sector However, the price per kilogram of feed is lowest for the brand supplied by co-operative union This price advantage is nullified by the inability of co-operative sector to produce feed adequately

All these together necessarily lead us to infer that the efficiency of co-operative dairy organizations in imparting input services to producer-members will be a yard stick to measure the future progress of dairy development efforts in the state Failure in this front is certain to shy sway farmers from the once applauded dairy farming It is with this background of information that the present study has been taken up with the following specific objectives

Objectives

1 To examine the input management of the co-operative network with special reference to cattle feed,

2 To identify the farmers preference for input services provided by the village level societies, and

3 To identify the problems and constraints in the input management by the Anand Pattern co operatives

Scope

The scope of the study primarily includes a critical examination of the input management practices of Anand Pattern primary dairy co-operatives in Ollukkara block of Thrissur district It also covers the farmers level of satisfaction and thus their preference for input services provided by these societies An estimation of demand for concentrates in the

areas covered by the sample societies and the extent to which this demand is met by the societies also falls within the scope of the study Altogether, the study is expected to bring out the problems and constraints in the input management

Practical utility

Academically, the study may throw much light on the input management of Anand Pattern dairy co operatives and the problems and constraints involved It will be of practical utility to the planners and policy makers of co-operatives to understand the farmers preference for input services In general, the realisation of the stated objectives will be of special significance for dairy co operatives to serve their members better

Limitations

The first objective was studied with the responses of the secretaries who were only three in number This, as also the nature of the objective, made us drop sophisticated analytical methods, and instead, adopt a descriptive approach The dearth of secondary data for the first objective too was a shortcoming

In order to measure the degree of satisfaction, scale technique was used While defining scales, one of the serious

problems confronting quantitative analysts for decades was the selection of appropriate scale values and the present procedure is also not free from that problem However, the researcher made every earnest attempt to overcome this problem and thus he classified the entire ratings into positive zone and negative zone The ratings in the negative zone also are positive, but they represent dissatisfaction

Plan of study

The report is divided into five chapters and the chapterisation is as follows The second chapter is critical review of literature relevant to the topic Having logically analysed the past studies, it brings into light the importance of input management and justifies the present study The third chapter explains the concepts used and materials and methods employed for analysis The fourth chapter comprises two parts The first part critically examines the input management practices of societies under study Farmers satisfaction and preference for input services are analysed in the second part The major inferences are summarised in the last chapter

Review of Literature

REVIEW OF LITERATURE

The literature on dairy industry is enormous It covers all types of organizations engaged in dairying The economics of dairying was one of the thrust areas that attracted the academics in a big way It got a further momentum with the implementation of Operation Flood programme otherwise called White Revolution In this process of academic exercises, the effect of various inputs on the productivity of milch animals was probed exhaustively Having observed the positive effect of different inputs on milk production policy suggestions were drawn especially to be implemented through dairy co-operative organizations under the Operation Flood Programme Thus the White Revolution well conceived the need for a totalitarian approach to dairy farming by co-operatives with the provision of an integrated package of input service at the producers level in addition to their prominent function of collection and marketing of milk

However, the academic curiosity was focussed more on the evaluation of milk marketing by the co-operative network, and hardly any attention was paid on the service of input supply to the farmers as it was misconceived as a secondary objective of dairy co-operatives The issue presently comes

into lime-light at the instance of the current literature on the economics of dairying which postulates but a fading and rather disappointing picture

It is observed that there exists a growing mismatch between the cost and returns of dairying operations This weakens the very substratum of dairy cooperative network as also tends to shake its well built edifice It is a taxing exercise to diagnose what has gone wrong and where The complication lies in the inability of dairy cooperatives to venture a further hike in consumers price so as to boost the producers return Since the consumers price is already high at a critical level any more is certain to result in consumers displeasure and panic Given this situation, a cost reduction is the only way out It is against this background of literature the present study attempts to examine the input service management of dairy cooperative network, an area which has been ill attended thus far

Literature on the specific question of input service management by dairy co-operatives and the preference of farmers in utilising such services is conspicuous by its near total absence However attempted below is an orderly arrangement of the available literature

Importance of input management

The importance of input management can be established by scanning the literature available on the economics of milk production While some of the studies had emphasised all inputs there are a host others that had made specific stress on certain inputs as critical and their management as vital for dairy development

Bedi (1987) argues that the dairy development process has been characterised by a goal directed effort in which the total system of action is mobilised to accomplish the desired ends Its efficient management required knowhow to combine a series of inputs in order to achieve growth in milk production Sankhyan and Joshi (1975) and Tripathi and Kunzru (1992) observe that there is a significant positive correlation between productivity of milch animals and input factors like concentrates dry fodder, green fodder, veterinary aid etc , and that milk production increases with increase in these factors at geometric mean levels Singh et al (1979) and George and Nair (1990) maintain that for improving the economic viability of milk production, reduction in cost of production is inevitable through continuous monitoring of the price of feed and by measures like subsidising providing adequate and prompt health care to animals disbursing loans at low rates of interest for

purchase of high yielding animals etc Similarly Rayer (1978) finds that the reasons for low yield of milk were the lack of intensive breeding facilities, inadequate supply of feed and fodder, and shortage of facilities for disease prevention

These studies are, in anyway, testimonies of the importance of inputs and their management. However they hardly succeed in explaining which are the critical inputs that can boost milk production economically as also increase farmers' margin

Given that the present study concerns itself with input management, that too, with special reference to cattle feed, it will be of immense use to probe which is/re the critical input(s) The studies reviewed below help us identify the critical inputs

Feed - the critical input

Several studies emphatically prove that feed is the critical input in dairy farming Ramasubban and Goel (1965), Jocob et al. (1971), Kumar and Rant (1971), Rant and Singh (1973), Aul et al (1974), Singh (1975), Kumar et al (1975), Madalia and Charan (1976), Singh et al (1979), Rao (1980),

Prabakaran (1980) Rao (1985) Kulandaiswamy (1986) Grover et al (1992) Singh (1992), Singh and Paul (1992) and Vasani et al (1992) observed in their respective studies conducted with static production function lagged production function Cobb-Douglas production function etc that feed is the major determinant of the cost of milk production They recommend that improvement of dairy enterprise be linked with supply of feed input, because the success of a dairy farmer depends on how well he deals with this input Other inputs such as veterinary aid credit insurance etc are but of less importance compared with feed These studies however are almost silent on the extent to which feed influences milk output

There are some studies that explain the share of feed cost in the total production cost as well as the extent to which increased use of feed explains change in milk production

While Panse et al (1961), Puri (1965) Singh and Jha (1975) Patel et al (1976) maintained that feed cost constitutes around two-third of total production cost Dayakar et al (1991), arrived at 71 per cent as the share of feed cost in the total cost Tailer et al (1992), went upto the extent of saying that 85 per cent of total production cost was spent on feeding animals

We may generalise that despite variations in the share of feed cost in total production cost depending upon the breed of animals and the area of dairy farming around 75 per cent of the total production cost is covered by the aggregate cost of dry fodder, green fodder and concentrates

Write (1957) argues that better feeding alone can increase the average yield of animal by 50 per cent or more Jacob et al (1969) found that 77 per cent variation in milk yield was explained by all feed ingredients collectively Kumar and Singh (1980) on the other hand concluded that an increased use of feed inputs for crossbred cows contributes about 34 per cent to total change in milk yield

The studies reviewed here reveal the substantial influence of feed on milk yield though the figures depicting such influence varied between studies Such a variation might have occurred because of differences in methodologies breeds or study areas This apart we may conclude that feed is the dominant input in terms of share in the total cost, and in terms of the extent to which milk output is raised These studies however, convey only the aggregate effect of all feed inputs and hardly reveal the most prominent component of feed input

The important feed inputs

Having seen the dominance of feed input we may explore the varying importance of different feed input factors Feed input comprises concentrates dry fodder and green fodder

Singh and Jha (1975) and Dayakar et al (1991) revealed that out of feed inputs concentrates represent the highest portion of the production cost and have positive relationship with herd size Hai and Gangwar (1976) substantiated this argument in their exercise on the cost of milk production on different size groups They observed that concentrate was the most significant factor influencing milk yield in small herd size farms in all seasons, and in winter and summer seasons in medium and large herd size farms Singh (1975) Vasni et al (1992) and Kumar and Agarwal (1992) found that the Marginal Value Product (MVP) of concentrates was the highest and hence highly significant indicating a scope for increased use of concentrates for enhancing milk output These studies hold green fodder as the second important feed input as the MVP exceeded that of dry fodder Mattigatti et al (1992) came out with a different result They observed that concentrates were inefficiently utilised with significant negative value of the difference in MVP They

report that any reduction in the use of this input would not affect the profit of cow enterprise

While the literature reviewed so far gave predominance to the increased use of concentrates (except the study of Mattigatti et al (1992) wherein complaint is raised only against the excessive use of concentrates than the level required) some other research suggest the increased use of green fodder as a prominent feed input

Amble (1965) having observed no possibility for raising the availability of by-products such as grain cakes bran, husk and straw suggested to grow more nutritious green fodder He portrayed it as the most economic way to meet the shortage of feed input

Singh et al (1979) determined the cost of milk production and found that green fodder is a major item of operational cost followed by concentrates dry fodder and manual labour Likewise Singh (1992) in his paper, probed into the factors influencing milk yield and resource use efficiency in the intermediate zones of Jammu and Kashmir and suggested that green fodder supply per animal be improved and increased to enhance milk producti m

There was hardly any study revealing the cost of dry fodder as a major component of operational cost or its (dry

fodder s) contribution to milk yield as high Yet Tailer et al (1992) observed that the total feed cost comes to 85 per cent of the total production cost, out of which dry fodder accounted for the maximum The cost per litre of milk produced was also highest for dry fodder they point out

Research by Jacob et al (1969) Singh (1975) Rao (1985) Kumar and Agarwal (1992) and Singh and Paul (1992), agree that concentrates and green fodder are the two important feed inputs and their increased use will help increase milk production While some of them gave prominence to concentrates othersobserved green fodder as the major input factor the share of both in the total feed cost and their contribution in the milk enhancement were substantial and remarkable That is why Sankhgan and Joshi (1975) observed that a comparison of Marginal Value Product of concentrates and green fodder with their corresponding per unit costs exhibited a great potential for increasing returns from milk through intensifying their use On the contrary, the MVP of dry fodder being less than its per unit cost, they suggested curtailment of its use

Based on the papers reviewed under this head one may fail to make a perfect ranking of the three feed inputs viz concentrates green fodder and dry fodder both in terms of

their contribution of milk production and in terms of the share of each in the total feed cost Despite this, it seems apparently free of danger to draw a conclusion that feed input can be ranked in the order of importance as concentrates green fodder and dry fodder

Feed shortage and under-feeding

Feed being a critical input for dairy farming it gives more meaning to comprehend the extent of its availability and to examine whether there were instances of under-feeding of animals To this effect, a few studies are reviewed below

Amble (1965) reports that there were shortages in the production of bye products such as grain cakes bran, husk and straw and the possibility to improve their production was little Hence he recommended for steps to encourage farmers to cultivate green fodder

In a specific reference to Kerala, Nair (1979) pointed out that the main bottleneck for increasing milk production in future would be the shortage of feed especially concentrates Massive production of compounded feed using domestic resources along with fodder production as inter-crop in garden land would be required for increasing the milk production he observes In a later study, Nair (1980) reiterated his position that as per estimates available in the cattle feed

requirement there was every possibility for a short-fall in future and it was likely to get worsened during Operation Flood II period After the Operation Flood-II programme started Nair (1982) noted again that while formulating this programme certain constraints were not considered and the most important one was that of feed As the supply of feed was not going to increase with demand, its price would rise , culminating in the declining profitability of milk production he predicted

A natural fall-out of the shortage of feed resources is that the animals will fall prey to mal-nutrition and under feeding The words of Rajapurohit (1975) testify to this His study unfolds the mismatch between the requirement and the availability of feed It shows that milch animals in many districts are fed below subsistence level and their yield is very low He argues that there is a vicious circle of low feed levels leading to low milk yield necessitating the rearing of more animals leading again to low feed levels

It may be a serious concern for Anand Pattern Dairy Co-operatives under the Operation Flood Programme to realise the shortage of feed input and the under-feeding of animals as revealed by the literature The matter should have a strong bearing on the input management of co-operative societies to

cater to the need of dairy farmers effectively This is a point of interest in the present study

Scale bias of operation flood programme

An often debated issue is how far Operation Flood programme was pro-poor, accommodating social justice One of the concerns of this study is to know whether the scale neutrality (or scale bias) of the programme has any bearing on input management by co-operatives

While Kahlor et al (1975) argued that the programme of Operation Flood using cross-bred cows was beyond the reach of poor farmers for want of adequate capital Rajapurohit (1979), Grewal and Rangi (1980), and Mahesh (1992) maintained that for small and landless farmers adopting dairy farming with cross-bred cows and for the effective tapping of the potentialities of milk yield their ability and capacity to provide adequate and quality feed will be a strong impediment, and given the situation the programme is pro-rich

Klans et al (1974) George and Srivastava (1975) and Shanty (1985) found that for smaller peasants cross-bred cows are economically too ummanageable as costs of acquisition and feeding are unaffordable These studies report that Operation Flood does not accommodate the element of social justice as

the investment cost and the feeding cost are heavy to run dairy business economically under the programme

Criticising the imitated western model of dairying which demands heavy deployment by resources Nair (1985) argued that conversion of these resources into milk is less efficient in our context especially in the case of poor farmers.

Swaru and Jagdeesh (1992) proved that with crop and cattle enterprises becoming more capital intensive, poor farmers are at a disadvantage

Contrary to such a scale bias, Shiyani et al (1989) report that the return per litre of milk was highest in small size group of milk producers' household (Rs 0 40) followed by large farmers (0 38) landless farmers (0 37) and medium farmers (0 32) But we cannot consider this sufficient to disprove the alleged scale bias of Operation Flood programme as the researchers are silent on issues like total quantum of milk yield milk productivity per animal, total income per farmer and ratio of income per farmer with the minimum income for subsistence level

We may draw from the literature that the Operation Flood programme is not free from criticism and that the programme is anti-poor primarily for two reasons The first

being the requirement of higher capital investment for the purchase of high-bred animals for the construction of pucca cattle sheds etc , and the second is the increased need for feed inputs especially of quality feed like concentrates This scale bias has an important bearing on the matter of input management by co-operatives The need for credit and feed as two important inputs to be provided on affordable terms to dairy farmers come into sharp focus as the only solution to allay the fears of the critics and to make Operation Flood programme meet the social justice of income distribution

The importance of credit as an input

Notwithstanding that our discussion so far is sufficient enough to realise the importance of credit as a critical input for dairy farming, some studies specific on the issue will be worth discussing

Ramasuban and Goel (1965) reported that milk production depended among other things on the extent to which additional resources by way of easy credit was provided George and Srivastava (1975) also endorsed this view In a comparison of beneficiaries and non beneficiaries Singh and Singh (1988) noted a linear relationship between credit input and milk production and productivity

Kale et al (1989) observed that the dairy co-operatives in the coastal area of Maharashtra give direct credit to farmers both short term and medium term But this did not make a substantial reflection on milk production owing to the inadequacy of the amounts of credit

Sharma and Kuber (1991) noticed that dairy animals accounted for the largest share of loans for landless farmers (73 49 per cent) and for marginal farmers (50 05 per cent) There was perceptibly higher milk production marketed surplus and per capita income in borrowers households when compared with non borrowers indicating the positive impact of credit on weaker sections

We may elicit from the foregoing review that credit input is a vital resource for making the Operation Flood programme relieved of its innate weakness of capital bias Credit has to find an important place in the input management strategy of co-operative organizations Not only will this act as a catalyst to dairy farming it will as well improve the plight of the poor peasantry

Other inputs

Some research on dairy industry have made serious references to other inputs like veterinary and artificial insemination services insurance cover to animals extension

services labour etc Though a number of studies have dealt with the various aspects of labour input on dairy farming we do not intend reviewing them as it is not one to be provided by any agency

Singh and Sharma (1979) suggested that for the effective implementation of Operation Flood programme, cross-breeding of indigenous cows through artificial insemination should be done extensively which will result in higher productivity

While Singh (1980), and Singh and Paul (1992) proved that the average cost of milk production per litre of milk is low among crossbred cows when compared with indigenous cattle Sreeja (1991) observed that the net income from crossbred cows was higher than desi-cows

Shenoy and Raju (1989) argued that simultaneously with the spreading of crossbreeding programme susceptibility of animals to diseases also increased and if and only if a mechanism to deliver veterinary services at affordable cost is developed the new technology in dairying will yield the desired result Pandey et al. (1982) upheld this view by adding that the reason for the poor adoption of the new technology was the absence of adequate facilities for veterinary care those who already adopted the technology were

put to severe hardship discouraging others to venture the same

It can be easily gathered from the literature that the promotion and the implementation of the technology depend on the facilities for artificial insemination and the maintenance and growth of this technology depend on the facilities for adequate and prompt veterinary services

Another input of dairy farming is extension education Thammi (1992) observed from the limited evidence available that the livestock farmers seemed to have gained positively whenever they were exposed to extension activities Vasni et al (1992) hint at the need for extension education to dairy farmers as the management of crossbred cattle differs considerably from that of desi cows It is due to the poor management many farmers failed to tap the full yielding potential of animals they argued

Since the need for extension as an input attracted academic interest only recently, the studies on this area are relatively less The importance of this input is not at all waived by the scanty literature as many scholars have expressed concern over excess feeding and poor management the obvious indication being the need for extension education

Provision for attractive schemes with lower costs for cattle insurance is yet another input that can help farmers a great deal in dairy business Except for casual and sweeping references no serious study has come into light on this issue However Shenoy and Raju (1989) emphatically stressed the need for cattle insurance They observed that in Kaira and Methasana districts of Gujarat, the respective Dairy Co-operative Unions have introduced group insurance for their members' cattle as an input service

The high investment cost a farmer incurs in acquiring a crossbred animal is often at the risk of pledging the little property he has Due to the vulnerability of crossbred animals to various diseases a proper insurance cover alone can make the dreams of the farmer come true

Role of co-operatives as sources of input services

So far we have seen the importance of different input factors in dairy farming Under the Operation Flood Programmes dairy co-operatives are considered the principal outlets of inputs as they assume the dual role of increasing production and developing markets Most research on dairy co operatives have confined themselves to the marketing function may be because of the wrong notion that it is the major function of these organizations There is hardly any

contradiction that this is a major function but the service of input supply is of no lesser importance Realising this fact some scholars have highlighted the need for input service by co-operatives eventhough the specific objectives of their study were different many a time Reviewed here under are some of these studies which referred to the role of dairy co-operatives in input service to farmers

While Kunwar et al (1975) and Arora and Kumar (1981) observed that the effectiveness of Operation Flood Programme depends on the ability of Co-operatives to cater to the input needs of dairy farmers at the grass-root level, Kulandaiswamy (1986) stressed that co-operatives need to take up production and distribution of various inputs of dairy farming This view is attested to again by Nair (1979) and George and Nair (1990) in their studies on the dairy economy of Kerala

Thakur (1975) and Kumar and Singh (1993), by comparing villages covered by dairy co-operatives with controlled villages reported that in the former, milk societies were found to provide various technical inputs like balanced feed concentrates fodder seeds artificial insemination facilities Veterinary Services medicines etc as part of their milk production and milch animal improvement programmes This resulted in better income for the members of co-operatives Comparing the successful dairy co-operatives with

the unsuccessful ones Sidhu and Sidhu (1990) proved that in case of successful societies there was significant increase in the sale of feed and other inputs while unsuccessful societies failed in this front Thus they held that the supply of inputs is a causative factor for the effectiveness of dairy co-operatives as agents for rural development

Nair (1982) held the view that the Operation Flood Programme has not properly provided for input services to be rendered through co operatives Nor has it provided for the production of the required level of cattle feed He predicted a shortage of this input which may impair the success of the programme A similar observation was made by Dayakar and Singh (1993) also

Instances of credible performance by dairy Co operatives in serving the input needs of the farmers were reported by some researchers Rande et al (1985) say that the integrated Co-operative network through its backward and forward linkages, attempted to enhance production and productivity as also controlled the cost of production by the provision of inputs like cattle feed, fodder seeds and veterinary and artificial insemination services

Rani et al (1992) ascribed the appreciable performance of the Milk Producers Women Co operative

Societies in Chittoor to the provision of various input services, which helped in augmenting the milk production

While Shenoy and Raju (1989) upheld the example of Dairy Co operative Unions of Kaira and Mehasana districts of Gujarat as having evolved group insurance cover for cattle owned by member farmers Kale et al (1989) were all praise for the dairy co-operatives in the Coastal area of Maharashtra for having provided direct short and medium term credit even though the amounts disbursed were far short of requirement

The literature reviewed above spells out the undeniable importance of dairy co-operatives as a source of inputs required by members While some co-operative organizations proved their outstanding excellence most of the researchers expressed their dissatisfaction over the performance of the dairy co-operative network in imparting input services This points to the need for making all out efforts by the agencies of Operation Flood Programme in order to equip themselves to meet of farmers input requirements

Conclusion

Altogether the scanning of available literature convinced the importance of input management It can be asserted that the critical input is feed both in terms of the

percentage share in the total cost of production and in terms of contribution to milk output Among the feed inputs concentrates dominate followed by green fodder and dry fodder Highly perceptible is the role of credit and Veterinary services as inputs to allay the fear of scale bias of the Operation Flood Programme Needless to say the success of the programme depends heavily on the ability of co-operatives as a source of input services to the dairy farmers

The foregoing account of various studies on the dairy economy of the country however established only the need and importance of input service management by co-operatives and keeps a blind eye on the crucial question of how it should be done Also dearth of literature was obvious on the preference of member farmers in availing of the input services provided by their respective organizations An enquiry into these two issues is hence believed to be of sense and value It is earnestly hoped that the present study tends to be a small step to fill this gap of literature

Materials and Methods

MATERIALS AND METHODS

This study is a micro-level examination of the input services of the Operation Flood Programme channelled through primary dairy co-operatives The strategy of the examination is such that to review the function of Operation Flood from two angles One is to analyse it by probing into the input management practices of primary societies The other is to measure the farmers satisfaction, and hence to assess their preference for these services since they are the target beneficiaries The present chapter explains how the study has been carried out

Conceptual clarifications

Explained hereunder are the various concepts used for the study

1. Input management

Input management refers to the management of different input services provided by primary dairy co-operatives It includes four functions viz procurement storage and distribution of inputs used in dairy farming and also the collection of feed back from farmers to whom these inputs are directed

2 Co-operative net work

Co-operative network in this study implies the net work of dairy co-operatives under Anand pattern It consists of primary dairy co-operatives affiliated to the Dairy Co-operative Unions at the intermediate level which in turn are federated into the apex body, viz , The Kerala State Co-operative Milk Marketing Federation Ltd (KCMMF)

3 Village level societies

By village level societies, we mean the Anand Pattern Primary Dairy Co-operatives and do not include the traditional dairy societies or any other co-operative form of organization

4 Anand pattern co-operatives

Anand Pattern Co-operatives (APCOS) refer to the dairy co-operatives formed under the Operation Flood Programme in the state of Kerala

5 Farmers' preference for input services

Farmers preference for input services connotes the extent to which farmers prefer availing of input services provided by the societies It is assumed in this study that their preference is the result of the satisfaction they derive

from utilising the services Hence their level of satisfaction is the preference determining factor

6. Level of satisfaction/Dissatisfaction

Level of satisfaction/dissatisfaction is the result of farmers positive or negative response over the performance of societies on different satisfaction determining factors

7 Satisfaction determining factors

We refer satisfaction determining factors to those factors of the performance of societies which can positively or negatively influence farmers Eight factors have been identified for the main input services provided by societies

8. Scale values

Scale value is a measure of the aggregate level of farmers satisfaction or dissatisfaction on each of the ,satisfaction determining factors in a scale ranging from zero to one hundred A satisfaction scale value of one hundred represents maximum satisfaction Similarly a dissatisfacti on scale value of one hundred shows maximum dissatisfaction

9. Priority index

Priority index shows the ranking of factors considered, based on their degree of importance By priority we mean the aggregate of the extent to which farmers attach importance to each factor considered for ranking

Study period

The primary data were collected in the year 1993 The secondary data relate to a period of nine years commencing from 1984 It was in 1984 that the sample societies were brought under 'Anand Pattern

Sampling procedure

For the purpose of the study Anand Pattern Societies of Ollukkara block were purposively selected because of the accessibility and familiarity of the researcher To ensure that the sample is effectively representative in nature, these societies (totally 20 societies in 1991) were classified into three strata namely, well performing societies, satisfactorily performing societies and poorly performing societies The criteria used for this classification are the following

1 Average milk collection per month

2 Average number of pouring members and

3 Average profit as a percentage of sales volume

These criteria are in fact performance indicators of a dairy co-operative organization Milk collection represents the volume of business transacted by the societies The number of pouring members is a measure of the coverage of area as well as the ability of societies to attract farmers Profit as a percentage of sales volume shows the business efficiency of these organizations Hence the use of these criteria for the purpose of sampling is justified The data to this effect pertain to the period of twelve months during the year 1991 The averages are worked out and shown in Table 3 1

From the already mentioned three strata, one society each was selected as sample societies From the well performing group, the society having the highest performance, at least in terms of two of the listed criteria was selected From the satisfactorily performing groups, the society nearest to the average level of performance, at least in terms of two of the criteria, was selected From the poorly performing group, the society with the least performance at least in terms of two of the said criteria, was selected Thus Vaniyampara, Chirakkekode and Mullakkara Anand Pattern Primary

Table 3 1 Average milk collection/month average number of pouring members and average profit as a percentage of sales volume in societies of Ollukkara Block during 1991

Sl No	Name of Society	AMC/M	Pouring members	Profit %
1	Vaniampara	32215	175	17 33
2	Koottala	8704	65	15 63
3	Mullakkara	2331	13	15 94
4	Kundukadu	6313	59	13 53
5	Verolippadam	9938	62	12 93
6	Chirakkekode	10562	107	12 50
7	Vazhakumpara	8523	73	20 28
8	Cherumkuzhi	21465	151	9 84
9	Chilempadam	2813	24	10 63
10	Akkarapuram	4401	35	11 00
11	Mattampuram	7760	60	14 72
12	Marakkal	4608	36	16 50
13	Alpara	5550	65	21 99
14	Kattilapuvam	14875	116	9 94
15	Ayyappankavu	6427	67	14 68
16	Panancheri	16107	124	13 71
17	Malamukku	8632	112	11 06
18	Vilangannur	19447	135	14 22
19	Villadom	6092	82	16 86
20	Peramangalam	4021	43	19 14
Average		10037	80	12 00

Source The Books and Records maintained in the Dairy Co-operatives

Milk Producers Societies were respectively selected These societies will be referred to hereafter as society A , society 'B and Society C' respectively Thirty farmers each from these societies were drawn at random for gathering primary data on farmers' preference for input services

Data collection procedure

Both primary and secondary data have been used for the study Primary data were collected with two separate pre-tested structured schedules from 90 sample farmers and the secretaries of the sample societies (See Appendix-I&II) Secondary data were generated from the books and records of the Societies

Methods of analysis

Mostly tabular method has been resorted to The first objective is studied rather in a different way The information pertaining to this analysis are mainly the responses of the secretaries of sample societies In this case processing of data with statistical techniques is neither feasible nor required as there were only three respondents (the respective secretaries) Hence a direct reporting method has been used The responses are then discussed critically by relating them with farmers responses

Besides this supporting analyses have been made with the data collected from the books and records of the societies For processing and comprehending these data relevant quantitative techniques are adopted the results are then presented in tabular form The techniquesused are explained subsequently

The second objective is studied with the responses from 90 sample farmers The information so obtained are of qualitative nature Hence scoring and scaling techniques are used for processing the data which are detailed later Results are again presented in tabular form These results are further discussed by taking into account the facts and figures derived from the analysis of the first objective

Techniques employed

The various statistical techniques employed and formulae used at different stages of analysis are explained below

Estimation of demand for feed

Demand for feed is estimated with the formula

D = a x b x c x d x e

D – Estimated demand in Rupees

a Average number of pouring members

b - Average number of animals per number

c = Average quantity of feed used in kilogram per day per cow

d - Average price per kilogram of feed in Rupees

e = Average period of lactation in days

The average used in the study is Arithmetic Mean in all the cases The average price of feed worked out is an average of average Since the price of each brand varied within the year, at first the average price of each brand is found out Then the arithmetic mean of the prices of different brand is obtained

Margin on feed sold

Margin on feed sold is computed by using the formula,

$$M - \frac{(S\ P)}{S} \times 100$$

Where M Margin on feed sold as a percentage of sales

S - Amount of feed sold

P = Amount of feed purchased

Priority index

The index is worked out to rank the factors in the order of importance and also to measure the degree of importance This is based on the ranks assigned by

respondents to each of the factors The respondents were asked to rank the factors depending upon the importance they attach to each factor The index value is worked out as follows

Suppose there are x_1, x_2 x_3 x_n factors to be ranked the respondents will assign 1 to n ranks Since the ranks as such cannot be used for further arithmetical operations these ranks are converted into scores This is done in such a way that n score is allotted to the factor which the respondent ranked first n-1 score to the second rank, and thus 1 score to the n^{th} rank The scores so obtained for each of the factors are then added up separately Thus we get the total scores for factors x_1 x_2 x_n This itself is sufficient to rank the factors in the order of importance However it does not give any idea about the degree of importance of factors Hence Priority Index is worked out This is done by expressing the total scores obtained by each factor as a percentage of the maximum total score obtainable The maximum total score obtainable will be the numerical product of the number of factors to be ranked, and the number of respondents Hence the index value can be computed by using the following farmers

$$P_{x_1} \quad \frac{\sum_{i=1}^{n} E_{s_1}}{nxN} \times 100$$

Where,

P_{x_1} – Priority Index value for factor x_1

E_{s_1} – The total score obtained by the factor x_1

n The number of factors

N = The number of respondents

If the respondents assign the same rank to two or more factors the corresponding scores are to be divided among such factors equally

Satisfaction index

In order to measure the level of satisfaction, scoring technique based on the method of equal appearing intervals was used In the method of equal appearing intervals, as originally described by Thurstone and Chave (1929) each statement concerning the psychological object of interest is printed on a separate card and the respondents are then asked to sort the statements on the cards into a number of intervals Along with the cards containing the statements each respondent is given a set of N cards on which the letters 'A to N appears These cards are arranged in order in front of the respondents with the A card to the extreme left and N card to the extreme right The A card is described as representing the card on which the statements that seem to

express the most unfavourable feelings about the psychological objects are to be placed Statements that seem to express the most favourable feelings about the psychological object are to be placed on the N card The middle or $(\frac{G+H}{2})$ point is described as the neutral card on which statements that express neither favourable nor unfavourable feelings about the psychological object are to be placed Varying degrees of increasing favourableness expressed by statements are represented by the cards lettered H to N and varying degrees of unfavourableness by the cards G to A It may thus be observed that the psychological continuum from least to most favourable is regarded as continuous with the psychological continuum from least to most favourable and the $(\frac{G+H}{2})$ or neutral interval is in essence a zero point But later, quantitative analysts brought certain variations in the procedure of obtaining equal appearing interval judgment arguing that the point of demarcation between favourable and infavourable degrees is not well defined These views were expressed by Edwards, Fullerton, Merphy, Likhert and Webb Among them Fullerton and Merphy argued for classifying the favourable and unfavourable attitudes into different zones and the method followed in the present study is almost similar to this

Relevant information pertaining to this analysis were collected from 90 farmers on eight satisfaction determining factors The responses having favourable attitude were classified into positive zone and the responses having unfavourable attitudes were classified into negative zones

The responses were further classified into agree and strongly agree with score values 1 and 2 on a two point scale Thus any score in the positive zone is a measure of favourable attitude and any score in the negative zone represent agreement with a negative attitude From this we derived the net score keeping the maximum possible score as common denominator

While doing such exercises, normally we gather response on the category no opinion But as a rule of thumb no opinion is omitted from the analysis This is under the apriori belief that any weight to it will unnecessarily affect the results Most of the respondents who selected the alternative no opinion did so for reasons of ignorance intention to avoid the question inability to make an assessment lack of serious thinking on the performance of societies and lack of interest

Results and Discussion

RESULTS AND DISCUSSION

PART-I

Input management by dairy co-operatives

In this part, an attempt is made to examine the input management of the co-operative network with special reference to cattle feed The examination is primarily based on the information collected from the secretaries of the sample societies through a direct interview method supported by data obtained from the books and records of the societies As the number of respondents was only three (i e the secretaries of the sample societies), no statistical tool is used in this section to process the information The method of analysis is a direct discussion of the responses to report as such the present state of affairs and a critical evaluation of the same to identify the positive and negative aspects of input management practices of these societies

The different input services provided

The following are the three major input services provided by the societies to the farmer members in the order of importance

1 Supply of concentrate cattle feed

2 Provision of veterinary services and

3 Supply of fodder seeds

In addition to these services, all the three societies have recommended, the cases of some farmers to co-operative and commercial banks to help them avail of bank credit for purchasing milch animals The recommendations have eased the difficulties of some farmers in getting loan sanctioned from the banks Any how such cases are exceptionally few in number especially in the case of societies 'B and C Though credit is an important input the societies are not currently providing any direct credit to farmers Therefore, this input is left out of the purview of this analysis and the matter is not pursued any further

Likewise society A' is currently working out a plan for the group insurance of their members' cattle Pending implementation, this is also excluded from the scope of this analysis

Concentrate cattle feed

As observed by the secretaries of the sample societies the main input service provided to the farmers is concentrate cattle feed Hence the study has given special emphasis to this input service The various aspects of its procurement, storage distribution and collection of feedback

from members, which constitute the input management function as per the definition of this study are examined herein

Quantum of cattle feed dealt in

The quantum of feed dealt in by the three societies together, showed a dismal picture While the feed procured has declined at an annual average rate of 4 12 per cent, the quantity supplied has declined at the rate of 4 03 per cent All the societies marked negative annual average growth rate for the quantity procured However, society B marked a positive annual average growth rate for quantity supplied though the rate is as meagre as 0 17 per cent The other two societies could achieve only negative growth rate in this case too (See Table 4 1)

The simple growth rate worked out does not show any definite growth pattern in any of the societies In the year 1992 all the societies marked a negative growth rate and the reason for the same as attributed by the secretaries was that the supply of feed from the Co-operative Union was considerably low in that year It is also worth mentioning that society A did not supply any quantity of feed in 1991

A comparison of absolute figures among the societies revealed that Society B has performed better compared with the

Table 4 1 Quantum of cattle feed dealt with (figures in kg)

Years	A		B		C		D	
	Procured	Supplied	Procured	Supplied	Procured	Supplied	Procured	Supplied
1984	14 605 (-)	15 558 (-)	21,115 (-)	22,341 (-)	13 686 (-)	14 408 (-)	49 446 (-)	52 307 (-)
1985	26 808 (83 55)	28,144 (80 89)	19,855 (-6 14)	20 965 (-6 16)	12,631 (-7 71)	13 212 (-8 30)	59,294 (19 92)	62,321 (19 14)
1986	28 350 (5 75)	30 522 (8 44)	19 720 (-0 68)	20,713 (-1 20)	12,652 (0 17)	13,325 (0 86)	60 722 (2 41)	64,560 (3 59)
1987	8 831 (-68 85)	9 341 (-69 39)	17,129 (13 14)	18 145 (-12 40)	9,275 (26 69)	9 693 (-27 28)	35 235 (-41 97)	37,179 (-42 41)
1988	13 578 (53 75)	14 224 (52 27)	18 371 (7 25)	19 373 (6 76)	5,865 (-36 77)	6,207 (-35 96)	37 814 (7 32)	39 804 (7 06)
1989	9 309 (31 44)	9,771 (-31 30)	20,144 (9 65)	24 386 (10 39)	5,111 (-12 86)	5 425 (-12 60)	34,564 (-8 59)	36 582 (-8 09)
1990	1 299 (-86 04)	1 399 (-85 68)	25 082 (24 51)	26,873 (25 66)	4,124 (-19 31)	4 397 (-18 95)	30 505 (-11 74)	32,669 (-10 70)
1991	0 (-100 00)	0 (-100 00)	13 892 (-44 61)	14 654 (-45 47)	3 178 (-22 94)	3 376 (-23 22)	17 070 (-44 04)	18 030 (-44 81)
1992	5 905 (-)	6 249 (-)	21 060 (51 60)	22 684 (54 79)	4,150 (30 59)	4 422 (30 98)	31,115 (82 28)	33 355 (85 00)
Average growth rate	-6 62	-6 65	-0 05	0 17	-7 74	-7 70	-4 12	-4 03

Source Computed from the Books and Records of the societies
Procured - Quantity of feed procured by the societies
Supplied - Quantity of feed supplied by the societies
Figures in parentheses indicate simple rate of growth in percentage

other two societies in seven years during the nine year reference period

It can be inferred here that altogether the growth trend showed an unsatisfactory performance of these societies in the quantum of feed dealt in Among the societies Society B performed better both in terms of rate of growth and in terms of absolute figures

The demand for and supply of feed

We have already seen the extent to which the societies have supplied feed It conveys only little unless it is compared with demand for feed Hence an estimation of demand is attempted here This is done by taking into account the average number of pouring members, the average number of cows, the average usage of feed per day per cow, the average period of lactation, and the average price of feed per kilogram The formula used for the computation is given in an earlier chapter The average number of pouring members and the average price per kilogram are given in Table 4 4 and Table 4 6 respectively. From the information collected from 90 sample respondents the average number of cows the average usage of feed per day per cow, and the average period of lactation were calculated and they are two , l 25 kg and 240 days respectively The estimation is conservative in nature for

two reasons One is that the concentrate feed used during dry period is not counted The other is that it is the average minimum quantity of feed used per day per cow that has been considered

The estimated demand for concentrate feed and the feed supplied by the societies as a percentage of this estimate are given in Table 4 2 The table reports that all the societies together supplied only 23 68 per cent of the demand for feed during the study period It means that the remaining 76 32 per cent was supplied by the private sector An inter-society comparison reveals that society C performed better by meeting 53 27 per cent of demand, while societies B and A could meet only 36 69 per cent and 12 23 per cent respectively From 1987 onwards the performance of the societies declined In 1985, society C met 61 16 per cent of its demand which was the highest Society A, on the other hand, did not supply any feed in 1991 despite that it could provide 1 23 per cent of demand in 1990

For further analysis a comparison of the rates of growth of demand for and supply of concentrates is made in Table 4 3 It is seen that when the demand for feed increased with an average growth rate of 0 81 per cent, the supply decreased at the rate of 4 035 per cent In the initial year the societies were able to provide only 31 93 per cent of the

Table 4 2 Estimate of quantum of feed required by farmers in each society during lactation period and the quantity actually supplied by the societies as a percentage of the estimated requirements (Figures in kg)

Years	Society A		Society B		Society C		Total	
	Estimated demand	Supply* in %	Estimated demand	Supply* in %	Estimated demand	Supply* in %	Estimated demand	Supply* in %
1984	90,000	17.29	47,400	47 13	26 400	54 57	1,63 800	31.93
1985	99,000	28 43	50 400	41 60	21 600	61 16	1 71 000	36 45
1986	1 01 667	30.02	48 000	43 15	24 000	55 52	1,73 667	37 17
1987	1 08,000	8.65	54 600	33 23	16,800	57 69	1 79 400	20.72
1988	1,11,000	12.81	57 000	33.99	11 400	54 44	1 79 400	22 19
1989	1 05 000	9.30	63 000	33 95	12,600	43 06	1 80 600	20 26
1990	1 14 000	1.23	66 600	40 35	10,200	43 11	1 90 800	17 12
1991	1 05 000	0.00	64 191	22 83	7 800	43 28	1 76 991	10 19
1992	1 08 000	5.79	58,800	38 58	9,000	49 14	1 75 800	18 97
Total	9 41 667	12 23	5 09 991	36 69	1 39 800	53 27	15 91 458	23 68

Source Computed from the Books and Records of the Societies

* - The quantity of feed actually supplied by the societies as a percentage of the estimated requirement

Table 4 3 A comparison of simple rate of growth of demand for and supply of feed

(Figures in percentage)

Years	Society A		Society B		Society C		Total	
	Demand	Supply	Demand	Supply	Demand	Supply	Demand	Supply
1984	-	-	-	-	-	-	-	-
1985	10 00	80 89	6 33	-6 16	-18 18	-8 30	4 39	19 14
1986	2 70	8 44	-4 76	-1 20	11 11	0 86	1 56	3 59
1987	6 23	-69 39	13 75	-12 40	-30 00	-27 28	3 30	-42 41
1988	2 78	52 27	4 39	6 76	-32 14	-35 96	0 00	7 06
1989	-5 41	-31 30	10 53	10 39	10 53	-12 60	0 67	-8 09
1990	8 57	-85 68	5 71	25 66	-19 05	-18 95	5 65	-16 70
1991	-7 89	-100 00	-3 62	-45 47	-23 53	-23 22	-7 24	-44 81
1992	2 86	-	-8 39	54 79	15 38	30 98	-0 67	85 00
Average growth rate	0 45	-6 65	2 67	0 17	-7 32	-7 70	0 81	-4 03

Source Computed from Table 4 1 and Table 4 2

demand (See Table 4 2) which itself denotes poor performance This further aggravated when the demand for feed rose at a faster rate compared with its supply In all the societies the annual average growth rate of demand was more compared with that of supply A negative growth of demard occurred due to the decline in the number of pouring members (See Table 4 4)

Though the provision of cattle feed is the most important input service by the societies, we find that only a meagre percentage of the demand was met by the societies The private traders continue to be the main source of concentrates for farmers When the demand for feed increased at a higher rate, the supply from the societies failed to keep pace The best performance in this regard was that of society C

Procurement of cattle feed

Here we examine procurement function in detail to analyse its efficiency

Sources of procurement

There are two major sources for the procurement of cattle feed, viz the co-operative milk producers' union and the private agencies The secretaries of the sample societies maintained that they prefer feed from the co-operative sector

Table 4 4 Average number of pouring members

Years	Vaniyampara*	Chirakkakode	Maullakkara	Total
1984	150	79	44	273
1985	165	84	36	285
1986	170	80	40	290
1987	180	91	28	299
1988	185	95	19	299
1989	175	105	21	301
1990	190	111	17	318
1991	175	107	13	295
1992	180	98	15	293

Source Books and Records of the Society

* The data were provided by the Secretary which wereonly an estimation on some of the books that were missing

compared with the private agencies as farmers are satisfied with the quality of MILMA brand of feed the price of which is relatively low However the availability of feed from the co-operative union is often uncertain After placing an order the societies need to wait endlessly to get the supply leading to a stock-out situation This troubles farmers very much and hence the societies depend on private agencies also Their attraction to the private source is mainly the promptness of supply despite the higher price charged by them

When asked about the quantum of feed procured from the co-operative sector and private sector separately the secretaries failed to furnish information for want of proper books maintained However drawing on their experience they said that in all the years the feed procured from private source was considerably more than what they purchased from the co-operative union Hardly any difference could be traced in the opinions of the three secretaries in this regard

The irregularity in the supply of MILMA brand of feed by the co-operative union makes the societies depend on private agencies often Even if the co Operative Union supplied feed on time once or twice the societies do place orders with private traders This is so because the promptness of the co-operative union is most of the time, at

risk This is likely to continue until such time as the Co-operative Sector is able to manufacture the required quantity of feed and supply it on time

Selection of brand

As per the rules the decision on the brand of feed to be procured shall be made by the Boards concerned However, in practice the decision is often taken by the secretaries themselves In societies A and C such a decision is taken only after consulting at least the presidents concerned while in Society B the Board ratifies the decision of the secretary Once a brand is selected it is not changed immediately If at all a brand is to be changed the general bodies of the societies are never consulted and the Board members take a decision thereon Even then because of their interaction with the members at the time of collecting of milk making payment etc , the secretaries seek informal opinions before changing a brand Unfortunately this observation does not agree with the responses of the farmers analysed in a subsequent section of this chapter The farmers responses showed that their most preferred brand is KS feed (the opinion had a high degree of unanimity) While only the society C deals in this feed the other two societies are dealing in a feed for which the farmers rating was comparatively low (See Table 4 21)

The secretaries maintained that if MILMA brand of feed is available, there does not arise a brand choice Only when they depend on private agencies brand choice becomes inevitable At the time secretaries were interviewed, societies A and B dealt in Godrej brand while Society C had K S brand in stock All the societies had tried some other brands such as Vijay OK etc earlier In addition Societies A and B had supplied A V M' brand, Society C had dealt in 'Gold Mohar and Comarla brands previously

The secretaries were asked to rank the brands of feed they have dealt in according to the order of importance The response are given in Table 4 5

Table 4 5 Ranks assigned by the secretaries to different brands of feeds

Sl No	Brand Name	Society A	Society B	Society C
1	MILMA	1	1	1
2	Godrej	2	2	-
3	O K	3	4	4
4	Vijay	4	3	3
5	Gold Mohar	-	-	5
6	K S	-	-	2

Table 4 5 reveals that MILMA brand has received top rank Next to it the secretaries ranked the feeds they are currently dealing in The farmers who have experienced using MILMA brand also ranked it first Among the private sector brands a substantial majority of farmers in all societies rated K S as the best feed Hence the secretaries of the societies, which are not presently dealing in K S feed were asked why they opted the brand out Though they agreed that the said brand boosts milk production the Secretary of Society A held the view that this feed has some adverse effect on the health of the animal But the Secretary of Society B maintained that the fat content of milk produced by animals fed with K S feed is less, which results in a lower price to the farmer under the two axis pricing policy which is in vogue

The only inference that can be drawn here is that the rating of feeds by farmers and officials differ in two of the societies This bespeaks that the opinions of farmers do not receive due consideration in the decision making process of the societies This is an irony of situation in organizations that are said to be democratically managed Nonetheless, without having a scientific rating of different brands of feed by veterinarians anything else cannot be said about the

appropriateness of brand choice decisions taken by these societies

Assessment of quantity to be procured

No scientific procedure is followed by the sample societies for assessing the quantity of feed to be procured Mostly a rule of thumb method is practised in this regard The officials admitted that this method resulted in excess stock or stock-out situations although with negligible severity often They held that their experience is a vital source of information for assessing the quantity to be procured and they felt it needless to depart from the present practice When the order is placed with the co-operative union, there arises difficulty in assessing the additional quantity to be procured because of the obvious uncertainty involved in servicing the order Thus if they repose their full confidence in getting the supply from the union, that may result in a stock out situation Reverse to this, there can be circumstances of timely supply, leading to over stock This is how their assessment of quantity to be procured goes wrong We may elicit from this observation that in a primary dairy co-operative society, the rule of thumb method of assessing quantity is more than enough If the co-operative union adheres to a time schedule in supplying, primaries can avoid excess stock or stork-out situations

Placement of order

An order can be placed with both the agencies (Co-operative Union and Private Agencies) over telephone or through written communication No advance payment of money is required in both the cases Societies B and C are known to have placed the order, for a fixed quantity of feed to be supplied every month, with the co-operative union so that the need for repeated ordering is avoided Unlike this as the requirement of Society A differs monthly especially based on the quantum of stock in godown provided by the private agency it places order every month instead of entrusting the union to supply a fixed quantity The cost of placing order is negligible

The private agencies take 15 to 20 days for delivering the goodsordered, while the co-operative union supplied the lot once in a month On many occasions, the union took more than one month in effecting delivery depending upon the availability of stock with them

Promptness of supply is high in the case of private agencies, while high irregularity is a feature of the co operative union When asked about the number of times each agency defaulted in making prompt supply the officials failed to give any information Yet they said, only on very few

occasions did the private agencies defaulted while the default rate was substantially high in the case of the union

Receipt of feed in the society

The cost of transportation is borne by the supplying agency But unloading charges are to be met by the societies when the co-operative union supplies feed The private agencies on the other hand do not make it the responsibility of the society

There is no mechanism in the society to check the quality of feed procured Having accepted goods in godown and supplied them to farmers the officials will consult the farmers to know the quality of feed Prior to the distribution of feed, its quality is not at all ascertained at the society level

Stock out or excess stock

In any organization stock out or excess stock occurs when the expectations and actual realisation, either on the procurement side or on the distribution side, differs considerably In the dairy co-operatives under study stock out or excess stock as the case may be is the result of variations in procurement and not because of any the increase or decrease in demand for feed than the level expected, as has

been observed by the secretaries of the societies Following are the reasons identified by them for the occasional occurrence of stock out or excess stock

1 When the supplying agencies (both co-operative and private) default in making prompt and timely supply

2. When duplication of supply occurs due to the delayed supply by co-operative union

3 When the co operative union fails to supply in full the quantity demanded

4 When the co-operative union clubs two or three months' orders together and supplies in one lot

5 When the assessment of quantity to be procured goes wrong

6 When damaged stock is supplied, or stock gets damaged in godown

The societies have no information on the number of stock-out or excess stock situations in a year, which made us impossible to calculate the frequency of such occurrences When asked about the severity of its effects on the societies and their members the officials observed that only the situation of stock-out is a problem for farmers They also claimed that by depending on private agencies they could

successfully manage even stock-out situations However these observations do not match the farmers responses The farmers complained that several times stock-out situation arose in their societies which lasted continuously for two to three months and even more leaving them the inescapable choice to purchase feed from private traders

This is an important area that societies should take care of in their input management function Situations of stock-out may tend to ruin the confidence of members The failure of the co-operative union in making prompt and adequate delivery had created situations of excess stock and stock-out, guarding against which alone can improve the input management function of dairy co-operatives

Price of feed

The price of feed charged by the private agencies is higher than that charged by the co-operative union When the former charges a higher price they also give a higher rate of commission to the societies One of the secretaries argued that the higher rate of commission adds to the profit of the societies and hence the farmers do not lose anything Anyway this is not an endorsable argument What a co-operative organization should think ought not be the ways and means to charge its members more, and thus make a profit Instead the

Table 4 6 Average price of cattle feed per kg

(Figures in rupees)

Years	Price per kg	Simple rate of growth in %
1984	0 80	--
1985	1 00	25 00
1986	1 20	20 00
1987	1 50	25 00
1988	2 00	33 33
1989	2 40	20 00
1990	2 80	16 67
1991	3 40	21 43
1992	3 80	11 76
Annual average growth rate		41 67

Source Calculated from the books and records of the Societies

Variations in the prices among different brands and price variations of these brands within the year are considered

idea should be to how best it can serve its member and also earn a surplus for the furtherance of its goals The secretaries admitted that even after reducing the extra commission paid by the private agencies the price of feed is higher than that of MILMA brand of feed

We find from Table 4 6 that the average price of feed has grown annually at the rate of 41 67 per cent during the study period The year to year growth rate depicts an increasing nature as far as the price of feed is concerned The highest growth rate was in the year 1988 with 33 33 per cent while the lowest was in 1992 i e , 11 76 per cent This increasing tendency of the price of feed may harm dairy farming It the co-operative union manufactures and supplies adequate concentrates, this may be reversed

Payment for feed

Payment for feed is made only after the receipt of goods in the godown Both the co-operative union and the private agencies allow credit facilities The credit scheme of the union is that the amount will be collected from the primaries within a month of delivery in three instalments The officials observed that whenever the financial position of their societies was sound they would make immediate payment for the feed procured from the union

Private agencies extend credit till the stock is cleared off from the godown of the society and its payment is realised from the customers Normally the period comes to one to one and half months This credit scheme is more attractive to the societies as they can deal in feed without any working capital If requested by the society the private agencies grant an extension of the credit period

The officials of the societies expressed their satisfaction over the credit scheme of both the agencies The societies make prompt payment as they are able to collect it from the customers within the allowed credit period

Storage of feed

Storage of goods is another important function of input management The feed stored in improper storage conditions is prone to fungal attack, which may affect the health of the animals Most farmers consider it seriously and some of them boil the feed before feeding their animals to guard against fungal infection We therefore examine here the facilities for storage in the sample societies

Godown facilities available

Society 'A alone owns a godown for storing the feed The society is housed in a concrete building of its own

wherein sufficient space is set apart as godown for feed But, in the other two societies there is no such godown and the storage facilities are poor The offices equipments for milk collection, books and records, and also the feed are accommodated in a small room It was observed that if stock of feed is not immediately cleared off it would get deteriorated in quality The officials reckon this as a drawback in efficiently expediting concentrate supply to the farmers Their financial position is not conducive to improve the storage facilities

Period of storage

It takes one or one and half months for a lot to be completely distributed to the farmers depending upon the size of lot Normally the goods get exhausted within one month Based on the data collected from the books of the societies the percentage of a lot cleared during first second, third and fourth weeks has been determined The data relate to an average of 10 lots arrived in the societies during the twelve-month period ending in December 1991

Table 4 7 The average quantity of feed disbursed during the first second third and fourth week

(Figures in percentages)

Sl No	Name of Society	First week	Second week	Third week	Fourth week
1	Vaniyampara Society	36	12	18	26
2	Vellanikkara Society	32	16	21	25
3	Mullakkara Society	35	16	17	29
4	Average for the whole sample	34	15	19	27

It can be inferred from Table 4 7 that on an average about 50 per cent of stock is distributed within the first two weeks, which means that the remaining goods are to be stored for more than 15 days in a month In the first and the last weeks of a month from the date of receipt of the load, the disbursement rate is high in all societies compared with the middle two weeks This occurs because in the first week, the stock of feed having exhausted, the farmers would be anxiously waiting for the arrival of the next lot to expedite purchase Hence the buying rate will be high in the first week Also, many farmers show a keen intention to purchase the feed fresh as they fear a quality deterioration while stocked in the society In the last week also the purchase rate is high

because, fearing a stock-out situation in the society, the farmers intensify their purchase The percentage does not add up to hundred indicating that on an average, within a span of four weeks the lot is not fully exhausted What is more relevant here is that almost fifty per cent of a lot is stored for more than 15 days and about 30 per cent is stored for more than three weeks This is suggestive of the need to improve the godown facilities It is also imperative that the stock be maintained properly to protect its quality

The officials admitted that because of the paucity of space they sometimes fail to adopt FIFO (First in first out) method of delivery This failure would result in keeping an old lot quite for a long time posing a threat of quality depreciation which can in turn affect even the new lot

Attempting to purchase two consignments instead of one in a month, increasing the space and other facilities in the godowns and adopting FIFO method are some of the ways which will help the societies reduce the problems of storage

Quality deterioration in stock

The officials of the societies revealed that there were instances when the goods stored in godown got damaged severely In such cases they had to abandon the stock thus incurring a loss However they do not have any specific

information on this to help us determine the extent of damages or the number of such occurrences In society B, the secretary narrated an event when she personally compensated for the damaged stock

In addition to such serious damages there occurs instances of quality degeneration while in stock but they find it within a bearable limit Cases of feed-caused diseases were also reported in all these societies Farmers too made such a revelation when they were interviewed To safeguard the animals health some of the farmers boil the feed, before they feed it to the animal Often these officials also recommend doing so, whenever they observe some quality reduction in the stock

The main reason for fall in quality of the stock, as cited by the officials is the spread of moisture content, resulting in fungal infestation of feed that is harmful to the animal As collection of milk, washing of vessels etc are done in the same room in two of these societies, the possibility of quality deterioration is high

Distribution of feed inputs

Having seen the procurement and storage of cattle feed, now we shall probe into the distribution of feed a major

function of input management by the co-operatives It involves all the processes in the supply of feed to farmers The effectiveness of distribution is a prominent factor affecting the satisfaction level of farmers in availing of this service from the societies Examined hereunder are the various aspects of feed distribution by the selected dairy co-operatives

The customers

Milk pouring members and non-members are the primarily targeted customers This is because the payment for the feed can be from the amount due to the farmer on account of milk poured The non-pouring members and non-pouring non-members are not entertained However they are also supplied feed against cash payment This customer identification in a way is appreciable especially for its ability to avoid default in payment of feed Despite this the fact remains that a genuine member who poured milk all throughout the lactation period of the animal and holding voting right is denied of his right to avail of this service with credit facility purely on the plea that he is not presently pouring milk, which may result in default This practice lacks credibility because it adversely affects co-operative loyalty If the society cannot accommodate a farmer for a short period when his animal is dry the organisation will be alienating itself from its

members Their interest in the organisation as dairy farmers, no doubt, will get jeopardized In fact this is a time when he is very much in need of help as his earning from milk is absolutely zero

When this was pointed out, the officials maintained that when the animal is out of milk, the farmer is not in need of concentrate feed and hence it need not be provided This is however not true in the farmers experience They observed that feeding concentrates is always required though the need is high during lactation period Adding to it they said higher feeding of concentrates is also required for pregnant animals There was hardly any farmer in our sample who did not feed his animal with concentrates when his animal is out of milk and/or in pregnancy

It may be wise that the societies devise a suitable scheme allowing those farmers who are members enjoying voting right and had poured milk all throughout the lactation period to enjoy the provision of concentrates with credit facility even when their animals are dry Otherwise these members will be left to the mercy of private traders The impending result will be their loyalty to the trader rather than to the co-operatives

Place of distribution

There is only one selling outlet each for the societies and are located very close A farmer wishing to purchase feed from the society has to come to the society and buy it This is all what is possible for primary milk societies of this kind However in society A, which is the largest one in Ollukkara block (See Table 3 1), there are members from distant places Carrying the bag of feed all the way from the society to home is a difficult task and hiring a vehicle is expensive Considering these difficulties they often depend on nearby private traders instead of the society

In order to serve these members better (often the milk poured by them is high, as observed by the secretary) arranging a weekly or fortnightly route with vehicular supply of feed is felt to be a feasible solution The additional cost involved is negligible when compared with the higher business volume and income that can be achieved

Time of distribution

In all the three societies the time of distribution is a few hours after the milk pouring and related operations For want of space, dealing in cattle feed before this time may result in contamination of milk by the dust from the feed especially in societies B and C which have only one room each

for all their operations . Another reason for not supplying feed at the time of milk pouring is that there are no additional personnel for this purpose and the available employees cannot free themselves from the milk pouring operations

However, the farmers find it difficult to purchase feed from the society because of the prescribed time schedule of distribution Even if they come twice a day to the society to pour milk they are forced to find separate time or wait for long so as to purchase feed Their genuine argument was that dairy business is only a subsidiary occupation for most of them and that they cannot spend much time in the society This is especially the case of labourers and workers who leave for their vocations in the morning itself They regard 6 pm to 8 pm the most convenient as it is when they purchase their other daily necessities

It is desirable that the societies change their time schedule to suit the convenience of the farmers The duty time of one or two of their employees may be altered to fall within this schedule of time This may help expand the sales of cattle feed in the societies

Quantity sold

The societies supply only full bags of feed and not in small quantities Selling in small lots is difficult because the dust of feed may contaminate the milk More employees may be required for selling in small measures The officials observed that though farmers are supplied only full bags of feed the payment is collected in weekly instalments Hence this is not a trouble This view was endorsed by some farmers too But for many farmers from distant areas carrying a full bag is a difficult and costly affair In addition to it some farmers held the view that judicious use of feed will be made by the family members only if the quantity stocked home is less This will also help avoid quality deterioration of feed while stored in the house The amount of instalment to be paid each time will also be less, they felt

The co-operative union and private agencies should be asked to pack feeds in bags of different quantities instead of bags of only 50 kgs If 10 kg bags, 20 kg bags etc are introduced in addition to the existing size, it will be a great help in serving the farmers better without adversely affecting the primary societies Actions need to be initiated in this regard

Cost of distribution

The cost of distribution was not ascertainable as no adequate records were maintained The salary of the employees and some stationery cost are the only expenses involved in distribution As there are no additional employees for the distribution of feed, calculation of the cost of distribution is difficult

Fixation of selling price

Selling price of feed is fixed by the supplying agencies and not by the primary society concerned A commission of Rs 10 is given at present per 50 kg bag Always the commission offered by private agencies was higher than that by the co-operative union At present for a bag of 50 kg, they offer Rs 12 as commission No share of this is passed on to the farmers, but adds to the income of the society

Table 4 8 reports that in all years of reference, the societies took a margin ranging from 4 5 per cent to 7 5 per cent on concentrate feed sold The secretaries observed that the margin was higher in those years when private brands were dealt in The co-operative union initially offered 4 5 per cent commission and now it is 6 per cent

Table 4 8 The amount of margin and the same as a percentage of sales volume taken by the societies in the sales of cattle feed

(Amount of Rs)

Years	Society A		Society B		Society C		Total	
	Amount	% of sales volume	Amount	% of sales volume	Amount	% of sales volume	Amount	% of sales volume
1984	762	6 12	949	5 31	577	5 00	2288	5 47
1985	1336	4 74	1110	2 29	581	4 40	3027	4 86
1986	2606	7 11	1192	4 90	808	5 05	4606	5 95
1987	765	5 46	1525	5 60	627	4 31	2917	5 23
1988	1291	4 53	2003	5 17	684	5 51	3978	5 00
1989	1108	4 72	2980	5 81	754	5 79	4842	5 51
1990	280	7 15	5015	6 66	766	6 22	6061	6 63
1991	0(NA)	-	2590	5 20	674	5 87	3264	5 32
1992	1307	5 50	6172	7 16	1034	6 15	8513	6 72

Source Computed from Table 4 1

Collection of payment

The payment for feed is generally collected in three weekly instalments from the farmers The secretaries allow the farmers, in deserving cases, an extension to some more weeks The amount is deducted from the payment for milk poured and hence there is only a little chance for bad debt However because of the casualties to animals or some other reasons, there were instances when the farmers defaulted in making payments Yet the societies were able to recover the amount from such members Farmers were satisfied with the present system of payments for feed

Veterinary services provided

The second important input provided by the societies is veterinary aid Both emergency and routine services are rendered The veterinary wing of the co-operative union is in charge of these services All members and pouring non-members are beneficiaries of the services

Routine veterinary service

The doctors of the union visit the society once in two weeks on a fixed day The farmers who bring their cattle to the premises of the society can avail the services of these doctors free of cost If the animal is too sick to be brought

to the society, he can take the doctor home by paying Rs.25 to the society

The main aims of this scheme are the following

1 To relieve the farmers of the need to seek veterinary services from outside sources

2 To identify in advance and to initiate precautions against contagious diseases

3 To maintain proper animal health

4 To suggest efficient animal management practices and

5 To reduce the cost of milk production

These novel aims are not always realised in actual practice, as admitted by the officials of the societies The visitsof doctors are not very regular creating trouble to the farmers who bring their animals to the society for treatment Earlier the visit was once in week which is now once in two weeks raising apprehension about the efficiency of the scheme The officials also pointed out that the number of farmers attending to these visits is coming down though they have not maintained any relevant data to this effect They feel that the reason for such a reduction in number is the very irregularity of visit

When asked about the quality of service the officials maintained that the farmers are satisfied with the quality of service provided The farmers opinions in this regard are analysed in a subsequent part of this study and hence not detailed here

Emergency veterinary service

This service is designed to provide treatment to the members' animals that require urgent care If a cow is suddenly affected by a disease or disorder, the farmer shall inform the matter to the society The secretary will pass on the information to the veterinary wing of the co-operative union The doctors will attend the case as fast as possible It is claimed that within an hour of such information the doctors arrive at the spot

To utilise this service, a farmer has to pay Rs 50 if he is a pouring member and Rs 60 if he is a pouring non-member A reduction of Rs 10 will be allowed to both for every subsequent call within two months of the first one This is a creditable service but for the delay in imparting Delays can lead to the death of the animals The officials revealed that howsoever serious the case may be, doctors often come late despite repeated messages to the union

All the secretaries observed that delay in veterinary care has, in some cases resulted in the death of animals Farmers too criticised this service because of the same reason

Artificial insemination services

Among the sample societies only society A is providing some assistance for artificial insemination The society helps farmers in procuring frozen semen Arrangements have been made with the nearby veterinary clinic for artificial insemination One third of its cost is borne by the society The farmers in the other two societies seek the assistance of nearby veterinary clinics and the Veterinary College of Kerala Agricultural University for artificially inseminating their animals No help is provided to them by their respective societies to this effect However, the doctors from the veterinary wing of the co-operative union undertake the artificial insemination operation during their routine visit, if the needed facilities are provided

The main complaint against the service of artificial insemination is that its success rate is low when compared with the natural process of mating of animals The secretaries of the societies as well as the farmers observed that most often they have to artificially inseminate the

animal twice or thrice for it to be effective They also reported failures even after attempted artificial insemination thrice, but instances of success in the first mating itself Anyway, this is only a general complaint against artificial insemination and is not solely the case of co-operative efforts However availing of the service of doctors from the union for artificial insemination is a matter of sheer chance for one cannot expect the doctor's visit to coincide the heat period of the animal

Due to the absence of properly maintained records in the societies, the number of cases attended either under the routine service scheme or under emergency service was not ascertainable The officials admitted that the number of cases attended under both the scheme is very few when compared with the total number of cases arising in their area The irregularity in doctors routine visit and the delay in providing emergency service are the main reasons for a dismal performance in this front It is equally true that the accessibility of farmers to other sources like veterinary clinics and veterinary college reduce their need for depending more on the services provided by co-operative societies This fact to some extent makes the co-operative network avoid taking a serious view of the veterinary needs of

the farmers Anyway, neither the officials nor the farmers expressed their satisfaction over this input service

Supply of fodder seed

Green fodder is considered a means to efficient feeding The operation flood programme has envisaged cultivation of green fodder to guard against the increasing non-availability of natural fodder In tune with this idea, our sample societies also provide fodder seeds to farmers

Supply of fodder seeds

Some of the records were missing, and some others imperfect making it difficult to calculate the quantum of fodder seeds dealt with Yet the officials of the society provided some information based on which calculations were made (see Table 4 9)

The figures represent the number of packets containing 250 gm of seeds each One packet will suffice 10 cents of land In the initial year all the societies procured more number of packets This was with the hope that there would be a good response from the farmers The supply rate was relatively high in the first year Subsequently the rate of procurement as well as the supply declined The reason for such a reduction was the poor harvest in the first year Since

Table 4 9 Quantum of fodder seeds procured and supplied

(Figures in no of packets containing 250 gm)

Years	Society A		Society B		Society C		Total	
	P	S	P	S	P	S	P	S
1984	100	54	70	38	50	31	220	123
1985	50	32	25	20	30	22	105	74
1986	75	40	20	20	20	16	115	76
1987	75	47	30	18	20	12	125	77
1988	75	75	30	30	20	11	125	116
1989	50	42	30	30	0	0	80	72
1990	60	60	20	20	20	20	100	100
1991	80	80	30	30	25	25	135	135
1992	80	80	40	40	30	30	150	150

Source Secretaries of the sample societies

P - Procured S - Supplied

1990 the number of packet, procured and distributed has been same because the societies compulsorily supplied the packets to the farmers on the date of payment of milk price The secretaries observed that only very few farmers came forward on their own to avail of this service The intention of some others in making the purchase was to get the fertilizer supplied on subsidised rate This they diversify to apply for other crops This scheme of fertilizer supply was introduced only recently The quantum of fodder seeds supplied is not worth considering for the reason that even 150 packets the highest grant total of purchase for all the societies collectively were sufficient to sow only 15 acres of land

Source of procurement

The Dairy Extension wing of the Department of Dairy Development Government of Kerala and KCMMF are the organisations of fodder seed procurement The procurement was done mostly at the interest of the supplying agencies and not at the initiative of the societies Many a time, the societies purchased seeds because of the compulsion of these agencies It was due to this reason that the societies increased their procurement in the final years of study as can be observed in Table 4 9

Price of fodder seeds

In the initial years the seeds were supplied by the agencies free of cost But in 1986 a price of Rs 4 20 per packet was introduced In 1989 it was increased to Rs 6 80 per packet and then to Rs 8 50 in 1992 As the societies do not take any margin on the seeds supplied the procurement price and the selling price are the same

Variety of seeds supplied

Three varieties of seeds were supplied so far The difference between the varieties are not known to the secretaries However they said one variety of seed is for cultivation as pure crop Another variety is to be sown in coconut plantations The third variety viz , Peelivaka is to be planted as a tree The societies mainly dealt in the one which was meant to be used in coconut plantations as that was the only one having some scope in their area

Draw-backs of the service

A major draw-back of this input service is that it is not need based as observed by the secretaries In their area green fodder is not that scarce and hence the applicability of the programme is restricted They implemented the programme just to adhere to the policies of Operation Flood

Another weakness of this scheme is that due to the shortage of land farmers were unwilling to spare their limited land for fodder cultivation Besides, cultivation of fodder as an inter crop did not produce good output This was a disincentive to farmers

Yet another failure of the programme as pointed out by the secretaries is that nobody is aware as to how to cultivate fodder seeds and how to obtain good output Without educating the farmers on this nothing fruitful can be expected

The secretaries admitted that supply of fodder seeds is not an important input service provided to the farmers It may remain so until it becomes a pressing need of the farmers in the area covered by the societies

Collection of feedback

Management of any affair requires information collected and used efficiently Input management is no exception Here we deal with the co-operative marketing of input services which need information at two levels The first level is the information from members of the organization (co-operative decision making) pertaining to their needs so as to take decisions on the input services to be provided The second level is the feedback from the members in their capacity as users of the input services

This shall help identify their level of satisfaction and the ways to improve it

Feedback is collected through formal and informal methods The formal ways are General Body meetings written complaints and suggestions, surveys and studies etc The informal method involves the interaction of the Board of Directors and the employees with the members We may probe hereunder how the societies collect feedback from members

The secretaries told that both formal and informal methods are resorted to The only formal method they know of is the General Body meetings So far no written complaints or suggestions were received in any of the societies Likewise, no formal surveys and studies were conducted to this effect

General Body Meeting

As per the bye-laws of the societies a compulsory General Body meeting should be conducted once a year, and special meetings can be convened in the warranting situations However, two of the societies have not conducted even one general body meeting every year Between 1984 and 1992 society 'A' conducted nine general body meetings Society C held seven meetings while Society 'B convened six during the study period This shows the inefficiency of these societies to collect feedback through formal methods

The attendance of members in the General Body meetings of these societies was high as per records The societies give an exgretia payment of Rs 10 to members as an incentive to attend the meetings Many farmers simply come and mark their attendance, and as soon as they receive the amount, leave the place Hence the effective attendance in the general body meetings is considerably less, maintained the secretaries

The minutes of the meetings do not give a proper account of the opinions, if any, made by members in the meetings Hardly any issue on input services was found to be discussed other than transacting the routine proceedings

The number of meetings the attendance and the minutes of the deliberations lead to the conclusion that the formal collection of feedback on input services through General Body meetings is not efficient Hence collection of feedback through informal methods can be made operational for better and reliable results

Informal collection of feedback

In all the societies the farmers maintain a good relation with the secretaries This is the main source of feedback on input services The secretaries maintained that they had enquired the members about the quality of a feed when

a new lot is distributed, about the health of the animals treated by the doctors from the co-operative union about the effectiveness of the fodder seeds cultivated etc As the farmers visit the society twice a day they find it convenient to inform their problems and suggestions to the secretary

The secretary of Society A said that the Board members too collect information from the farmers for discussion in the meetings In the other two societies the secretaries reserved their comments as to whether a lively discussion is taking place in the Board meetings based on the feedback from farmers

The informal discussion of the secretaries and Board members with the farmers is the only way for collecting feedback on input services rendered It is not clear how far the feedback is used in the decision making process If it is properly utilised the quality of input services can be improved and hence the level of satisfaction of members

The secretaries were asked as to how they proceed with customer complaints on input services Their immediate response was that no serious complaints have so far occurred The complaints against the quality of feed provided by a private agency will be informed to the agency, and sometimes replacement of the remaining stock was effected Customer

complaints against feed and veterinary services provided by the co-operative union are informed to the union through the visiting Procurement and Input Officer, but they have not experienced any good response from the union Such matters were never pursued further by the societies

It can be inferred that feedback on input services emanates from informal channels and serious efforts were not initiated to improve the service based on the information collected This is particularly true in the case of input services arranged with the assistance of the co-operative union as part of its network services Proper collection of feedback and it utilisation in the decision making process is certain to help the societies in improving the quality of input services

PART-II

The farmers preference for input services provided by the selected dairy Co-operative Societies is examined herein The analysis is based on the information collected from a sample of 90 farmers It is assumed here that the preference of farmers in availing of the input services depends on their level of satisfaction from these services and hence a higher satisfaction shows a higher level of preference and vice versa Supply of concentrate feed, provision of veterinary services and supply of fodder seeds are the three input sources considered for analysis Special emphasis is given to concentrate feed as it is the prime input service provided by the co-operatives under study

Even though we have evidence to prove that the above said three input services are provided by the Societies, we requested the respondents to list out the input services provided to them The results are shown in Table 4 10

It is clear from the Table 4 10 that all the farmers are well aware of the supply of concentrate feed However 44 per cent of the respondents failed to know the provision of veterinary services from the Societies similarly 23 per cent are unaware of fodder seeds services It does not mean that the societies are not providing the last two services but it

Table 4 10 Members' awareness of input services provided

Sl No	Input services provided	No of respondents agreed and their percentage to total			
		Society A	Society B	Society C	A+B+C
1	Supply of concentrate feed	30 (100)	30 (100)	30 (100)	90 (100)
2	Provision of Veterinary Services	19 (63)	15 (50)	16 (53)	50 (56)
3	Supply of fodder seeds	23 (77)	27 (90)	19 (63)	69 (77)

points to a serious deficiency in the performance of the Societies It raises apprehensions about the lack of sincerity on the part of the societies officials, as a notable number of members are not even aware of the different services provided

Nevertheless it will be meaningless to conclude that all those who are aware of the input services are availing them of To probe more, the farmers were asked whether they are utilising the services provided by the Societies The number of farmers positively responded with their percentage to total, is given in Table 4 11

Table 4 11 Number of respondents availing of the input services provided

Sl No	Input services provided	No of respondents			
		Society A	Society B	Society C	A+B+C
1	Supply of concentrate feed	23 (77)	19 (63)	25 (83)	67 (74)
2	Veterinary Services	10 (33)	7 (23)	11 (37)	28 (31)
3	Fodder seeds	9 (30)	7 (23)	6 (20)	22 (24)

Figures in parentheses indicate percentage to total

It is clear from Table 4 11 that though all respondents are aware of the supply of concentrate feed (see Table 4 10), only 74 per cent are availing of this service Table 4 12 proves that all the respondents use concentrates for feeding their animal regularly This means that 26 per cent of the farmers depend fully on private traders for feed It can be noted from Table 4 13 that even this 74 per cent of respondents (see Table 4 11) are not always utilising this services from the societies Often they also depend on private traders for concentrate feed This is clear from the first part of this analysis that out of the total estimated demand for concentrate only 20 per cent was met by

co-operatives (See Table 4 2) which indicate that farmers buy concentrates substantially more from the private trader when compared with dairy co-operative societies.

Majority of the respondents do not avail of veterinary services and fodder seed This majority also includes some farmers who used these services but very rarely. It is a matter of concern that around 70 per cent of the farmers are not utilising two of the input services provided by the societies This reaffirms that the only important input service is the supply of cattle feed

Table 4 12 Regularly used feed ingredients for cows, under lactation

Sl No	Feed ingredients	No of respondents agreed and their percentage to total			
		Society A	Society B	Society C	A+B+C
1.	Green fodder and/or dry fodder	30 (100 00)	30 (100 00)	30 (100.00)	90 (100.00)
2.	Concentrates	30 (100 00)	30 (100 00)	30 (100 00)	90 (100.00)
3	Oil cakes	30 (100.00)	30 (100.00)	30 (100 00)	30 (100.00)
4	Rice bran	18 (60 00)	23 (76.67)	19 (63.33)	60 (66.67)
5.	Rice	9 (30 00)	7 (23 33)	12 (40.00)	28 (31 11)
6	Tamarind seed	4 (13 33)	2 (6 67)	0 (--)	6 (1 67)

Figures in parentheses indicate percentage to total

Table 4 13 Regularity of purchase of feed from the Society

Sl No	Regularly of purchase	No of respondents and their percentage to total			
		Society A	Society B	Society C	A+B+C
1	Always from Society	0 (0 00)	0 (0 00)	0 (0 00)	0 (0 00)
2	Always from the Society if feed is available	6 (20 00)	3 (10 00)	7 (23 33)	16 (17 78)
3	Always from the Society if preferred brand is available	7 23 330)	11 (36 67)	14 (46 67)	32 (35 55)
4	Occasionally from the Society	10 (33 33)	5 (16 67)	4 (13 33)	19 (27 11)
5	Rarely from the Society	2 (6 67)	3 (10 00)	0 (0 00)	5 (5 56)
6	Not at all from the society	5 (16 67)	8 (26 67)	5 (16 67)	18 (20 50)

Figures in parentheses indicate percentage to total

Reasons for non-utilisation of input services

Attempted below is an analysis to identify the reasons why the farmers are either not utilising or underutilising the input services provided by dairy co-operative societies

Separate reasons are identified for the non-utilisation of each input service and are presented under separate heads Scoring technique is used to rank the reasons in the order of importance which has been outlined in Chapter 3

Reasons for non-utilisation of cattle feed

It may be inferred from Table 4 14 that the most important reason for farmers not using the service is the non-availability of their preferred brand, the index value of which is nearer to 100 Thus there was high unanimity among the respondents to attribute non-availability of preferred brand as the most important reason However an inter-society comparison shows that in Society C', the index value is considerably low i e 58 67 This is because most of the time the Society had been keeping KS brand of feed which is the most preferred one among farmers, as evident from Table 4 15 and only on few occasions did they resort to other feed brands Hence non-availability of the desired brand is not the main reason for farmers in Society C not fully opting for the service of cattle feed supply Societies A and B normally dealt in Godrej brand of feed which stood lower to 'KS and 'Vijay in the farmer ranking (See Table 4 15) The reluctance of farmers to use this brand of feed reduced their purchase from the societies and they mainly depended on

private traders who had stocks of their preferred brand It proves that utilising the input service of feed supply from the society is highly correlated to the brand of feed dealt in by the societies

Table 4 14 Reasons for non-utilisation of cattle feed

Sl No	Reasons	Index value			
		Society A	Society B	Society C	Total
1	Non-availability of preferred brand	88 67	95 00	57 67	80 78
2	Non-availability of feed	70 67	63 00	84 33	72 67
3	Selling time is inconvenient	54 67	60 67	68 33	61 22
4	Distance from Society to home is more	50 33	48 67	40 33	46 44
5	Lack of loose quantity sales	35 67	32 67	48 33	38 88

Table 4 15 Index of brand preference of private feeds among farmers

Sl No	Brands of feed	Index value			
		Society A	Society B	Society C	Total
1	K S	82 50	78 33	95 83	85 55
2	Vijay	67 50	64 16	62 50	64 72
3	Godrej	60 00	61 67	55 00	58 89
4	OK	40 00	45 83	36 67	40 83

Non-availability of feed is another major reason that impedes the farmers in availing of the input service of cattle feed In such cases, farmers go to the private trader for meeting their cattle feed requirements Some farmers even opined that for want of money, they seek credit from private traders They therefore cannot immediately switch their purchase of feed to the Society, even if the Society has replenished its stocks

The farmers accessibility to feed sold by the societies is further reduced by the inconvenient timings of supply, the non-availability in small lots or bags of lesser quantities These have been explained at length in the first part of analysis

Reasons for not using veterinary services

Seven reasons have been identified by the farmers for not availing of the veterinary services provided by the Societies They are presented in Table 4 16 in their order of importance

For collecting data pertaining to this only 19 15 and 16 respondents from Societies A B and 'C respectively are used Only these respondents know of and occasionally utilized the veterinary services provided by the societies (See Table 4 16)

The mismatch between need and time of service, procedural difficulties and delays in getting the cases attended, easy accessibility to other sources, irregularity in the routine visit of doctors from the co-operative union are some of the major reasons expressed by farmers for not properly utilising veterinary services provided by the societies A detailed account of the procedures of veterinary care and the complexities thereon has been made in the first part of the analysis

Table 4 16 Reasons for non-availing veterinary services

Sl No	Reasons	Index value			
		Society A	Society B	Society C	Total
1	Need and time of service does not match	92 86	90 14	84 71	89 29
2	Procedural difficulties and time delay in attending the cases	63 29	69 57	68 43	67 00
3	Routine visits of doctors are irregular	49 43	65 00	66 43	60 29
4	Other sources are easily accessible	57 71	64 29	57 14	59 71
5	Bringing animal to the spot for cheek up is difficult	60 14	54 00	54 43	56 14
6	No commendable cost advantage	35 29	29 00	37 14	33 86
7	Dissatisfaction over the quality of service	41 29	28 00	31 71	33 71

Reasons for non-utilisation of fodder seeds service

We have already seen that 77 per cent of the respondents are aware of the provision of this service by the Societies and attempted to make use of it once or twice but only 24 per cent have made some use of it (See Table 4 10 and Table 4 11) Despite that fodder seeds are provided at a nominal price along with subsidised fertilizer, the farmers have enjoyed them only a little A number of thought provoking reasons came into focus during the interviews with the farmers to this effect

The identified six reasons have been ranked and are presented in Table 4 17 The information in this regard were collected from 23, 27 and 19 respondents respectively from Societies A'', 'B and 'C as they alone were aware of the provision of this service by the Societies (See Table 4 10)

All the reasons cited by the farmers for not utilising the service of fodder seed supply are almost equally important as evident from the closeness of the index values given in Table 4 17 However the principal reason is the feeling that it is not viable to spare land for fodder cultivation as the opportunity cost will be high For several respondents, land is too scarce (5 cents 10 cents etc) to undertake fodder cultivation Those who have some land and tried cultivating

Table 4 17 Priority index on reasons for non-availing the fodder seeds service

Sl No	Reasons	Index value			
		Society A	Society B	Society C	Total
1	It is not viable to spare the land for fodder cultivation	71 83	69 67	73 67	71 67
2	Natural green fodder is reasonably available in the area	62 00	67 67	57 50	62 33
3	Land is too scarce to undertake fodder cultivation	59 33	53 88	64 00	59 00
4	Fodder cultivation as an intercrop gives only poor result	54 50	55 67	53 67	54 67
5	Initially the cultivation attempted but the result was discouraging	53 17	55 17	49 50	52 67
6	The cost of cultivation is high when scientific recommendations are followed	49 17	48 00	51 67	49 67

fodder as an intercrop experienced poor output The scientists claim good results from fodder cultivated as an intercrop But this does not match with the farmers

experience All these reasons pull back the farmer from utilising this service

Another blessing in disguise also makes this service unattractive to the farmers While the territory of Society A is surrounded by the Peechi forest area Societies B and C fall on the two sides of the vast land stretch owned by Kerala Agricultural University The farmers have a free accessibility to fodder in the Peechi forest area The Kerala Agricultural University permits fodder collection by issuing entry passes with a fixed charge of Rs 10 per day Such an availability of natural green fodder deters the farmers from cultivating fodder

With the immediate attraction to fodder cultivation induced by the scientist community, most of the farmers attempted once or twice The results were disappointing that they gave up the idea at a very early stage Some farmers were of the opinion that good results can be achieved only if proper manuring and plant care is given which they felt too costly

It can be well inferred here that the only prominent input service provided by milk societies is the supply of concentrate feed The other two services are not much attractive to the farmers for reasons stated above

Farmers' satisfaction over the main input service

So far we have seen the extent to which farmers make use of the input services provided by the dairy co operatives and the reasons for their nonutilisation Now we tend to study the farmers satisfaction over the main input service viz the supply of concentrate feed The conceptual basis of this analysis is that the preference of farmers for availing of the input service is determined by the degree of satisfaction they derive from such a service Hence the study is proceeded with eight satisfaction determining factors drawn from extensive discussion with farmers as also from the pilot study These factors are as follows

1 Availability of preferred brand and brand choice
2 Quality of the feed supplied
3 Price charged by the Societies
4 The mode of collecting payment
5 Availability of feed
6 The time fixed for supply of feed
7 Supply of convenient quantity
8 The attitude of Societies' officials and staff

The analysis is done with scaling technique which has already been explained With this technique the overall satisfaction level is worked out so as to infer on farmers

preference for input services provided by the Societies Based on the satisfaction determining factors listed above, information were collected on a five point scale from the sample population The processed results are classified into positive zone and negative zone

The aggregate satisfaction level

The compounded effect of all listed satisfaction determining factors is presented in Table 4 18 in the form of scale value indices

Table 4 18 Scale value indices (the aggregate result of all satisfaction determining factors)

Sl No	Name of Society	Positive zone	Negative zone
1	Society A	--	7 94
2	Society B	-	11 54
3	Society C	12 61	--
4	Pooled	--	2 30

The Societies A and B are characterised by indices in the negative zone implying that the farmers are dissatisfied over the input service provided by the societies However both values are closer to zero Had they been closer to hundred the dissatisfaction would have been maximum Unlike

these two societies the other one (Society C) scored a positive scale index When the whole sample is taken, the level of dissatisfaction shrinks to negligible and is so close to zero Therefore it can be said that the farmers are neither too satisfied nor too unsatisfied These indicate a poor performance level on a vital service of cattle feed supply to the farmers Naturally the farmer preference for the said service will be low But many of them make use of these service because of their loyalty to the Society and the lack of a better alternative and not because of their satisfaction

A bifurcated analysis of satisfaction determining factors

We have already seen that the overall satisfaction level contributed by the aggregate effect of different satisfaction determining factors is negative This does not mean that the Societies have performed poorly on all the satisfaction determining factors Only with a bifurcated analysis of these factors the strength and weakness of the Societies in imparting the input service of cattle feed supply can be identified With this intention each factor is studied below separately

Availability of preferred brand and brand choice

The satisfaction index worked out on this satisfaction determining factor reinforces that there exists

a correlation between availability of preferred brand and farmers preference for availing of the input services provided It can be observed from Table 4 1 that only in Society C there is a positive scale index while the other two societies showed considerably high dissatisfaction scale values It was clear from the first part of the analysis that the societies are not providing any brand choice

Table 4 19 Satisfaction index on availability of preferred brand and/or brand choice

Sl No	Name of Society	Positive zone	Negative zone
1	Society A	-	60 42
2	Society B	--	61 11
3	Society C	44 64	--
4	The Whole Sample	--	22 84

Yet the farmers in Society C are moderately satisfied It is because the Society deals in the farmers most preferred brand KS The other Societies often supplied Godrej which falls lower to KS and Vijay brands of feed in farmers' rating (See Table 4 15) This contributed highly to the farmers dissatisfaction over the performance of these the Societies When the whole sample is taken, it can

be noted that altogether the farmers are dissatisfied over the performance of the societies on the satisfaction determining factors under study The dissatisfaction scale value is comparatively lower as evident from Table 4 19 for the reason that the farmers in one of the Societies are moderately satisfied on this front

An interesting fact that can be proved here is that even if brand choice is not provided if the societies can take some steps to identify the most preferred brand of farmers either through formal or through informal methods of feed back and thus to provide the same the satisfaction level of the members may well be improved The experience of Society C testifies to this finding

The officials of Society A and B expressed their negative remarks on KS brand of feed in defence of their choice of Godrej brand Neither the farmers experience nor any scientific proof is available to support these arguments Hence the motivations of Societies A and B in supplying the Godrej brand are dubious Even if the arguments of these officials are taken for granted they unveil a lack of needed education to be imparted to the farmers so as to convince them the troubles in using other brands of feed The most feasible solution in this regard will be to consult

scientists for authentic information to make a brand choice Based on such information the farmers are to be properly educated This will go a long way in increasing the farmers satisfaction over the input-service under study

The quality of feed supplied

The quality of feed supplied has two connotations One is about the quality of brand The other one is the quality deterioration that may occur while stored in Societies Hence presumably the farmers' responses to the quality of feed must have been influenced by both these elements Based on these responses the satisfaction index is worked out and presented in Table 4 20

Table 4 20 Satisfaction index on the quality of feeds supplied

Sl No	Name of Society	Positive zone	Negative zone
1	Society A	-	48 15
2	Society B		41 38
3	Society C	51 92	--
4	The Whole Sample	--	14 02

It can be observed from Table 4 20 that here too the Society C has made a fairly commendable positive index of 51 92 Just the reverse is the case with Societies A and B Because of the poor performance of these two Societies the index also shows a negative scale index in respect of the whole sample

As has been already hinted, this poor level of performance can occur for two reasons Either the quality of brand supplied must have been poor or the quality of feed might have depreciated while stored in the godown The case of quality degeneration and the precautions taken by farmers were mentioned in an earlier context

However this reason does not explain inter-Society variations in the level of satisfaction as shown by the satisfaction/dissatisfaction index on quality of feed supplied Three important points in support of this view can be drawn from the first part of this chapter The first one is that the fall in quality of feed while on shelf is not the lone case of any one Society Secondly, it was observed that the period for which the feed is stocked is almost equal in all the sample Societies The third point is that the possibility of feed getting damaged while in stock was more in Societies B and C as the godown facilities available to them are poor Despite this it was Society C that achieved a

satisfaction scale value while the Society A depicted only a dissatisfaction scale value Hence it can be inferred that inter-Society variations in the level of farmers satisfaction on quality of feed supplied must have occurred because of the quality differences in brands It is also worth mentioning that Societies A and B wherein the farmers were dissatisfied deal in one particular brand of feed while the Society C , wherein farmers were satisfied, supplies another brand

The difference in quality of brands has been studied by processing the scores allotted by respondents to each brand It can be noted from Table 4 21 that KS brand tops the list with a score of 66 57 per cent where the Godrej brand obtained only 52 70 per cent Therefore the dissatisfaction of farmers in Societies A and B is attributable to the low level of quality of Godrej brand as expressed by the respondents when compared with KS brand The farmers' dissatisfaction must have arisen from their perception that higher would have been the quality of feed, if KS brand was supplied instead of Godrej

Table 4 21 Percentage score on the quality of different brands of feed

Sl No	Name of brands	Percentage score			
		Society A	Society B	Society C	Total
1	KS	61 20	65 40	73 10	66 57
2	Vijay	52 20	56 80	50 10	53 03
3	Godrej	53 70	52 00	52 40	52 70
4	OK	47 70	51 50	43 60	47 60

Since quality is highly subjective, we have also identified from farmers the factors that determine the quality of a feed as far as they are concerned The farmers were asked to rank these factors in their order of importance The results are given in Table 4 22

Table 4 22 The quality determining factors of feed - the index of importance

Sl No	Factors	Index value			
		Society A	Society B	Society C	Total
1	Milk yield	81 33	78.00	83.67	81.00
2	Feed acceptability to animal	61 67	65 44	60 67	62 59
3	Health of animal	52 16	48 83	45 67	48 89

Farmers definition of quality of feed includes inter alia its effect on the health of the animal This fact lowers the credibility of the argument that KS brand of feed contains toxic ingredient (two of the secretaries so argued), as the farmers rated the feed top on the basis of quality However it is clear from Table 4 22 that farmers perception on quality is over influenced by the milk raising capacity of feed and they under-estimated the effect of feed on animal health This is because farmers get attracted more to the immediate and tangible results of using a feed Hence their rating of feeds cannot be considered mistake-free It opens up new vistas for research especially for veterinarians A scientific assessment of the quality of different feed brands and the effect of various feed ingredients on animal health is peremptory Such a scientific rating is to be thus compared with farmers rating If they differ there is every reason to probe more into the sinister intentions of feed manufacturers to make their brands more attractive by adding ingredients capable of augmenting milk yield in the short-run, but are toxic

Another point of concern is the feed acceptability to cattle As per the scientific formulae used for manufacturing feeds there cannot be any brand of feed unacceptable to cattle But experience shows that animals hesitate to consume

a different brand of feed if they are accustomed to one particular brand of feed even if such a familiarity is just for a short period There are some farmers who do not rely upon any particular brand of feed Unlike the previous case in their experience, all brands of feed are acceptable to animals It raises apprehensions about a purposefully created brand addiction may be as a marketing tactic of feed manufacturers That may be the reason why feed acceptability to animal' has become the second important quality-determining factor in farmers' perception

Farmers feel that feed manufacturers add some elements that create a 'feed addiction rendering them incapable of changing a brand all of a sudden However this needs a scientific verification to get a solid proof An unbiased assessment of different brands becomes important and the dairy co-operative net-work has to initiate actions in this regard Pending a scientific assessment of quality of various brands of feed, this analysis which is purely based on farmers perception of quality of feed reveals a dismal picture of the performance of Societies A and B Farmers are not satisfied with the quality of brands they have been receiving from these Societies Society C is unique in this respect thanks to KS brand Quality deterioration of feed while in stock is a common complaint levelled against all societies

If quality deterioration in stock is properly attended to with adequate provisions for brand choice and extension education to farmers the societies can improve the level of farmers satisfaction

Price charged by the Societies

This is another satisfaction determining factor considered for assessing the farmers preference for the input service provided by the Societies Farmers expressed a reasonable degree of satisfaction over the price charged by the societies for the feed they purchased It can be observed from Table 4 23 that all the societies have scored a satisfaction scale value of moderate order It convincingly prove that the Societies are not exploiting the farmers by charging an exhorbitant price Nonetheless no body has claimed a noticeable price advantage in purchasing the feed from the Society when compared with a private trader, (See Table 4 31) This is an area where the societies can improve upon much to the satisfaction of their members Since Societies deal directly with wholesalers or manufacturers of feed, that too for a substantial volume they may be able to sell at a lower rate than the local market rate if managed well This by itself will result in more business as also satisfaction and will be an affective instrument to combat the soaring prices This calls for added attention because

farmers feel that the price of feed is unaffordable and the continuously increasing trend makes dairy farming uneconomical (See Table 4 6)

Table 4 23 Satisfaction index on the price charged by the societies

Sl No	Name of Society	Positive zone	Negative zone
1	Society A	41 07	--
2	Society B	40 74	--
3	Society C	51 72	--
4	The Whole Sample	44 64	--

There exists price competition in the feed market, and considerable price differences prevail among various brands of feed Yet the paradox is that the price of KS brand which is farmers' favourable one is the highest when compared with all other brands Farmers, when asked about their preference for a low priced brand responded in the negative They feel that a low priced brand will be poor in quality, the use of which may result in a decline in milk yield It is their feeling that a high priced feed is of high quality But what they wish is to get the most preferred brand at a price lower than the existing level These perceptions of farmers lead

to the conclusion that over and above price quality is their main criterion for choosing a brand Yet it does not follow that price is their least consideration This is clear from the higher preference farmers showed to MILMA brand than to KS' brand It can be observed from Table 4 24 that in the matter of quality the latter gets a slightly higher score than the former Still farmers preferred MILMA brand more for the reason that there is some price advantage in purchasing it Based on the price attraction the farmers placed MILMA brand much higher to KS (See Table 4 24) When both the brands are almost similar in quality and if one of them gives some price advantage, the latter will be the natural choice of farmers

Table 4 24 MILMA and KS brands of feed - A comparison on the basis of quality and price

Sl No	Name of Society	Quality		Price	
		Milma	KS	Milma	KS
1	Society A	63 80	61 20	68 50	39 00
2	Society B	60 00	65 40	71 10	44 30
3	Society C	65 30	73 10	74 20	39 70
4	The Whole Sample	63 03	66 57	71 26	41 00

An issue of policy arises here In spite of grave concern of farmers towards the hike in price level of feeds, all the societies under study purchase feed from the private sector for want of adequate supply from the co-operative union (Refer first part of this chapter) A reversal of this trend is needed Since MILMA brand of feed is lower priced with comparable quality vis-a-vis other leading brands, it is high time that the co-operative sector initiated serious and rigorous measures to enhance the production and distribution of this brand This will go a long way in bringing the price of feed down to an affordable level

Credit facility and the mode of collecting payment

Credit facility and mode of collecting payment for the feed is another satisfaction determining factor As the dairy farmers often run short of money, credit facility is an attraction in availing of the input service of the Societies The Societies make payment to the farmers for the milk poured by the latter, only once in a week Therefore in purchasing inputs credit facility is of high utility to the farmers and even the private traders extend it especially as a technique to attract customers

Table 4 25 Satisfaction index on credit facility and of collecting payment

Sl No	Name of Society	Total agreement score	Total dis-agreement score	Positive zone	Negative zone
1	Society A	35	2	58 93	--
2	Society B	40	1	65 00	--
3	Society C	34	1	58 93	--
4	The Whole Sample	109	4	61 05	--

As reported in Table 4 25 farmers expressed a fairly high degree of satisfaction over the credit facility and mode of collecting payment for feed by all the societies

However some farmers feel that if the number of instalments is increased it would have been more convenient for them Anyway this is an important satisfaction determining factor which has contributed substantially to the overall level of farmers satisfaction on the supply of cattle feed

Availability of feed

Barring the dry period concentrates are used everyday by farmers to feed their cattle (See Table 4 12) It

essentially demands regular supply of feed by the societies We have seen elsewhere in this chapter a case of non availability of preferred brand Now the question on focus is whether the brand of feed that is supplied by the Society is regularly available so that on any particular day the farmer can buy it This is yet another satisfaction determining factor used in this analysis

Table 4 26 Satisfaction index on availability of feed

Sl No	Name of Society	Positive zone	Negative zone
1	Society A	-	42 31
2	Society B	--	50 00
3	Society C	--	29 17
4	The Whole Sample	--	40 79

It is an area of serious dissatisfaction on the performance of the Society as far as the farmers are concerned Table 4 26 shows dissatisfaction scale value in all Societies Due to the irregularity in the supply of feed, farmers are exposed to two important dangers The first one is that in all such cases resorting to the private trader is the only way out since farmers cannot manage even a single day

during lactation period without concentrate feed (See Table 4 12)

The second problem of grave implication is that the animals fed with one particular brand of feed will be reluctant to consume a different brand There is no guarantee that the brand supplied by the Society and the local trader should be the same Often the farmers experience is so, especially in the area of operation of those societies dealing in Godrej feed The local traders concentrate most of the cases in KS brand Beyond this, if at all the animal consumes the new feed, it often results in digestive problems and other diseases All these affect adversely in one way or the other the milk yielding capacity of the animals

Unless Societies make efforts to ensure the availability of sufficient stock of feed at all times, the farmers' satisfaction over this input service will be adversely affected Prompt and adequate supply from the co-operative union and effective arrangements with private agencies alone will solve the problem

The time fixed for supply of feed

Table 4 27 Satisfaction index on the time of feed supply by the society

Sl No	Name of Society	Positive zone	Negative zone
1	Society A	--	50 00
2	Society B	--	61 11
3	Society C	--	57 14
4	The Whole Sample	--	56 02

The time fixed by the Societies for the supply of feed is found to be inconvenient to the farmers as can be drawn from Table 4 27 The index shows substantially high dissatisfaction scale values in all the Societies Though farmers visit the Society twice a day to pour milk, they are forced to come once again to purchase cattle feed This is because the selling time fixed for cattle feed does not match the time of milk collection The reasons thereof were elaborated earlier

However the sincerity of purpose of these societies is at doubt when we take into account other options which would have been of considerate help to the farmers One is

that the feed selling time should commence within five to ten minutes after milk collection and associated work Another improvement that may be brought in is operating for the full day instead of a few hours Additional cost in this regard would be negligible as the the very same employees can do the work A major improvement to be attempted is the rescheduling of the time of sale so as to include 5 30 pm to 7 30 pm when most of the people come to market This will enable the farmers to avoid finding separate time and cost for purchasing the feed Similar other ways of solving the farmers' difficulties in this regard may be attempted depending upon the specificity of their requirements

This dissatisfaction farmers feel over time fixed for the supply of feed could have been minimised had there been genuine initiations and enthusiasm either from the paid staff or from the elected board or at least from an enlightened general body theoretically on which the ultimate power of management is vested

Supply of feed in convenient quantities

One can buy a full bag of feed or a single kilogram of feed as one likes, from a private trader Here it is the choice of the farmer that matters much than the seller imposing on the buyer the quantity to be purchased Notably

different is the practice of the dairy co operatives under study as regards the quantity sold They sell only a full bag and not in any small lots They have their own reasons to justify this However it is worth examining whether the farmers are satisfied on this policy or do they simply adhere to this because of a choiceless situation

Table 4 28 Satisfaction index on quantity supplied

(Figures in %)

Sl No	Name of Society	Positive zone	Negative zone
1	Society A	--	13 46
2	Society B	--	41 38
3	Society C	--	62 50
4	The Whole Sample	--	39 76

It is understood from Table 4 28 that as a whole the farmers feel dissatisfaction over the provision of no other option than the full bag in all the Societies There is a perceptible difference between the scale values in Society A and Society C though both the values fall on the dissatisfaction scale The most probable reason for such an occurrence would be the difference in the scale of operation of dairy farming conducted by farmers in both the areas The

farmers suffer from the policy of selling only full bags of feed

The officials of Societies brought into light some of their practical difficulties in selling small quantities which are explained in the first part of this chapter They claimed that since payment is collected in instalments, purchasing a full bag of feed will not be a problem to the farmers They also maintained that farmers will be at an advantage of getting a gunny bag free of cost

However, the farmers citing some of their problems in buying a full bag exhibited a keen interest to get feed in small lots One of the important problems observed by them is the difficulty in carrying a full bag home Many of them get the service of a head-load worker or hires an autorickshaw In both the cases the cost involved is high They maintained that the advantage claimed overgetting a gunny bag can never be a match to carrying cost involved Some even commented that when loose quantity is sold the gunny bag will remain with the Society the sale proceeds of which can be distributed among farmers based on the proportion of their purchase of feed

Interestingly enough farmers were categorical in saying that the additional work that may arise due to the

selling of loose quantities can be managed with the existing staff if properly looked into Their knowledge went up to the extent of saying that only a portion of the sale proceeds of gunny bags will suffice to reward the existing staff for additional duties or even for affording new employees

Another problem cited by the farmers is the difficulty in storing a full bag of feed If the number of cows maintained is less the feed is to be kept at home for a longer period, when the chances of fungus attach are more

Farmers feel relieved of much of the money burden in purchasing a full bag because of the facility of payment in instalments Yet they observed that once feed is purchased, the Society would try to collect the amount at the earliest for reasons of liquidity and to be on the safer side Similarly many of the farmers are also happy to clear off the liability as early as possible Most of them do not make a thorough check as to how much of money is deducted on account of feed purchased when they are paid the milk bill unless the situation is so compelling Hence they expect more easy payment if small quantities are supplied

If societies can initiate measures for supplying feed in loose quantities it will be of high utility to the farmers The space constraint is to be managed somehow The

possibility and feasibility to manage with the existing staff facility is to be explored If loose quantities are sold the volume of business can be increased as farmers depending on private traders can also be attracted Another advantage is that the Society need maintain only lesser stock and hence the working capital requirement can be brought down Thus in many ways a policy initiative to supply small lots of feed is definite to bear fruit The feasibility of such an attempt will be high if Societies are willing to introduce sales of oil cakes and similar other products of routine requirement in dairy farming At present none of the Societies are providing such services

The attitude of officials and staff

The approach and attitude of a seller always affects the satisfaction of buyers Modern marketing gives special emphasis on fair attitude from the part of the seller This helps in boosting his business In a co operative organisation there is owner user identity implying that the customer and owner are the very members themselves Despite this the officials should treat the farmers cordially when they approach the Society as customers This may help in maintaining a proper marketing perspective

It can be noted from Table 4 30 that in general, farmers expressed a reasonable degree of satisfaction over the attitude of officials and staff

Table 4 30 Satisfaction index on attitude of societies officials and staff

Sl No	Name of Society	Positive zone	Negative zone
1	Society A	40 74	--
2	Society B	53 85	--
3	Society C	38 89	-
4	The Whole Sample	44 38	--

The foregoing analysis of farmers' preference for the input service of concentrate feed ends with an unpleasant note Out of the eight satisfaction determining factors only three fall in the positive zone and the remaining five in the negative zone Supplying the preferred brand, increasing the production and distribution of MILMA brand of feed by the Co-operative Union rescheduling the feed supplying time supplying feed in convenient quantities etc are some steps that may help in improving the farmers preference for this service

Co-operative and private traders - A comparison

In order to probe more into the satisfaction level of farmers as customers of cattle feed a comparison between the dairy Societies and the private traders seems to be worth attempting Here also the already listed eight satisfaction determining factors are used for assessing the performance With this purpose the farmers were asked to allocate scores out of ten based on their satisfaction level to both the agencies in comparison Scores were so obtained on all the satisfaction determining factors The results give the total scores obtained by each of the factors in the form of percentage to the maximum obtainable These scores make possible a comparison between Societies and private traders

It can be observed from the Table 4 31 that the private traders outdo the performance of co-operatives by obtaining a total score of 61 89 per cent when the co operatives could achieve only 42 50 per cent It means that the preference of farmers is more in favour of private traders This is true for the whole sample and the individual societies However the difference between the scores obtained by two agencies is higher in the case of Societies A and B when compared with the other This is mainly due to the higher score obtained by Society C for the first satisfaction determining factor viz availability of

Table 4 31 Aggregate scores allotted by farmers to Society and private traders on the satisfaction determining factors - score as a percentage of maximum obtainable

Satisfaction determining factors	Society A		Society B		Society C		Total	
	Society	Private	Society	Private	Society	Private	Society	Private
F_1	3 67	61 33	6 00	63 33	72 33	40 67	27 33	55 78
F_2	56 67	37 33	51 00	40 33	66 33	52 33	58 00	43 33
F_3	67 67	55 33	59 33	51 33	63 00	55 00	63 33	53 89
F_4	79 00	47 00	72 00	44 00	69 00	51 33	73 33	47 44
F_5	19 67	74 33	24 00	83 67	27 67	80 00	23 78	79 33
F_6	4 00	78 00	7 00	80 00	6 00	74 33	5 67	77 44
F_7	31 33	70 67	21 67	69 00	14 66	82 67	22 56	74 11
F_8	60 67	58 67	69 67	66 00	67 67	66 67	66 00	63 78
Total	40 33	60 33	38 83	62 46	48 33	62 88	42 50	61 89

preferred brands An aberration is noticeable in case of F_7 the supply of convenient quantities Here the scores between Societies is higher in Society A followed by Society B The attributable reason for this is the scale of dairy farming (see Table 4 29) Since farmers in Society C own only fewer number of cows they would like to get feed in small measures than in full bags Hence their level of satisfaction is low compared with the farmers in the other two Societies The score has fallen almost in the same pattern among Societies for all other satisfaction determining factors

Farmers rated the performance of their Societies as better compared with the private traders on three of the satisfaction determining factors viz quality of feed, price charged and mode of collecting payment, and credit facility (F_2 F_3 and F_4 respectively) They do not feel much difference between the attitude of Societies' officials and that of the private trader (F_8) However the co-operatives stand nowhere near the private traders on all the remaining satisfaction determining factors (F_1 F_5, F_6 and F_7)

Their difference is well reflected in the purchase behaviour of members We have already seen from the first part of this chapter that a major portion of demand for concentrate feed was met by private traders (see Table 4 2)

Also to be noted is that 26 per cent of the respondents are not at all utilising the service of concentrate feed from the Societies (see Table 4 11) and none of the respondents are fully depending on Societies for this service (see Table 4 13) No doubt this is an area of serious concern Hence, it is examined hereunder as to how the members made use of their democratic rights to address themselves to the problems involved in the provision of input services

The respondents were asked whether they informed the management the various problems they have been facing in connection with availing of the input services The responses are given in Table 4 32

Just by continuously making available farmers preferred brands of feed the Societies can keep in its fold 53 33 per cent of farmers as evident from Table 4 13 Adjusting the selling quantity and selling time to farmers convenience will enable the Societies to attract substantial number of farmers Failure in evolving policies and programmes in these directions may distance even the most loyal farmers (17 78 per cent as per Table 4 13) from the societies

Democratic control and input services

We have seen that farmers preference for input services provided by the dairy co operatives are less promising It demands a thorough revision of strategies policies and programmes that are being pursued Co-operatives are organisations wherein members have democratic control Then it is uncanny that the members' best interest is not served in these organisations This raises apprehensions about members not exercising their due role in management

It can be noted from Table 4 32 that more than 50 per cent of members in all Societies either rarely or never took up their problems difficulties and dissatisfaction with their Societies This can be one of the reasons why the input services of the Societies fell short of expectations Failure on the part of members to exercise their due role in control and management of affairs makes the very purpose of a co-operative organization futile However to these respondents another question was asked as to why did they refrain from approaching the management for needed improvement The reasons are given in Table 4 33

Table 4 32 Percentage of respondents informing their problems to the Society

(Figures in %)

Sl No	Responses	Percentage of respondents to total			
		Society A	Society B	Society C	Total
1	Always	6 67	0 00	6 67	4 44
2	Occasionally	30 00	40 00	40 00	36 67
3	No opinion	0 00	3 33	0 00	1 11
4	Rarely	36 67	46 67	53 33	45 56
5	Never	26 67	10 00	0 00	12 22
Total		100 00	100 00	100 00	100 00

Table 4 33 Reasons for members not taking up the problems with the management

Sl No	Reasons	Percentage of respondents to total			
		Society A	Society B	Society C	Total
1	Did not know how to take up the matter	10 00	13 33	6 67	10 00
2	Took simply everything for granted	16 67	10 00	16 67	14 44
3	Did not feel that management will take their complaints seriously	26 67	20 00	10 00	18 89
4	Management is also aware of the problems	10 00	13 33	20 00	14 44
Total		63 34	56 66	53 34	57 77

While 10 per cent of farmers did not communicate their problems for reasons of ignorance 14 44 per cent avoided this responsibility because of their lack of empathy, on the other hand 33 33 per cent of respondents accused the management for making them abstain from feeding back to the Societies These opinions point to the need of management soliciting feed back from members on the input services provided, and also to the needed co-operative education

To those respondents who claimed to inform the management their problem and suggestions (see Table 4 32) another question was asked as to how did they inform the management whether formally or informally The responses are presented in Table 4 34

It can be noted from Table 4 34 that more than the formal ways it is through informal communication the members have been informing the Societies their opinions on input services It is mainly to the secretaries of Societies the farmers informally communicate in this regard Among the formal ways general body meeting stands prominent Hence an examination of members participation in the general body meetings will be of use It may also be noted from the first part of this chapter that annual general body meetings were not regularly conducted in two of our sample societies

Table 4 34 The source through which members feed back to the management

(Figures in %)

Sl No	Ways	Percentage of respondents to total			
		Society A	Society B	Society C	Total
1	Through GB meeting	3 33	6 67	13 33	7 78
2	Through formal communications	0 00	0 00	3 33	1 11
3	By telling informally to the secretary	20 00	26 67	23 33	23 33
4	By telling informally to the elected board	3 33	0 00	0 00	1 11
5	Formally through GB and informally through secretary	10 00	6 67	6 67	7 78
Total		36 66	40 01	46 66	41 11

It can be observed from Table 4 35 that about 60 per cent of the respondents either rarely or never attendedthe general body meetings of the Societies Only as low as 17 78 per cent regularly attended the meetings We have already seen that only 15 56 per cent of the respondents have made use of general body meetings to raise their views on the provisions of input services (see Table 4 34) Since the attendance of farmers in general body meetings is less,

chances of taking positive decision on the views raised by these members will also be less This is a very dangerous trend as far as a co-operative organization is concerned Needed improvements in the input services of the Societies can be brought about if and only if the members exercise their democratic rights as owners of the organization

Table 4 35 Regularity of members attending the general body meetings

(Figures in %)

Sl No	Regularity of attendances	Percentage of respondents to total			
		Society A	Society B	Society C	Total
1	Regularly attended	16 67	13 33	23 33	17 78
2	Occasionally attended	30 00	20 00	23 33	24 44
3	Rarely attended	30 00	36 67	43 33	36 67
4	Not at all attended	23 33	30 00	10 00	21 11
Total		100 00	100 00	100 00	100 00

Summary and Conclusions

SUMMARY AND CONCLUSION

Commercial dairy farming in India has only a very short history of six to seven decades The major policy initiative so far in the field of dairy development is the programme of Operation Flood It has already entered its third phase of implementation The strategy of the programme, inter alia, includes milk production enhancement programmes with the provision for an integrated package of input services

The state of Kerala was included in the Programme right from its second phase of implementation Despite this an uncomfortable trend has emerged in the dairy economy of the state during the recent years The dairy farming is nearing stagnation and its dynamism in terms of profitability is fast vanishing Currently the net margin of the operation tends to be negative To reverse this trend, increasing the producers price in the prevailing circumstances is not a feasible solution What can be attempted with is measures to reduce the cost of production of milk in which case the input service management of dairy co-operative network assumes unprecedented importance

The review of past studies reiterates this importance It also reveals that feed is the dominant input factor that commands almost 70 per cent of the total production cost and holds a substantial contribution to the milk output Among the different feed inputs concentrates stand prominent, followed by green fodder and dry fodder The literature raises apprehensions about the scale bias of Operation Flood, and finds its solution in the provision of inputs like credit and veterinary services among other things To put it in a nutshell, the literature focuses input management as a much needed function of dairy co-operatives but it leaves unexplored issues like how this function is to be carried out and to what extent farmers prefer availing of such services Hence the study is made with the following objectives

1 To examine the input management of the co-operative network with special reference to cattle feed

2 To identify the farmers preference for input services provided by the village level societies, and

3 To identify the problems and constraints in the input management by the Anand Pattern Co operatives

The study covers the Anand Pattern dairy co-operatives of Ollukkara block of Trichur District Stratified sampling technique was used to select the sample societies

Accordingly Society A , Society 'B and Society 'C' were chosen, representing well performing , satisfactorily performing' and 'poorly performing' societies respectively Such a classification was effected based on three performance indicators, which are the average milk collection per month, the average number of pouring members and the average profit as a percentage of sales volume From these societies 30 farmer- members each were drawn at random for collecting primary data for the second objective of the study

Both primary data and secondary data were used for analysis The primary data were collected in 1993 from the Secretaries of the sample societies and 90 farmers The secondary data were obtained from the books and records maintained by the societies relating to a period of nine years from 1984

The analysis of the first objective was mainly a direct reporting of facts and a critical discussion of such facts The second objective as also some areas of the first objective were analysed with tabular method The third objective has been realised from the analysis of the first two The results and findings of the study are summarised below under five heads

Supply of concentrate feed

Both the farmers and the secretaries opined the supply of concentrates as the most important input service provided All the respondents were aware of the provision of this service but 26 per cent of them did not turn up to avail of it from the societies None of the farmers fully depended on the societies for this service while the said 26 per cent fully depended on private traders

The quantum of feed supplied has grown at an average rate of 22 55 per cent per year during the study period The quantum of feed procured and supplied have shown a similar growth pattern indicating that the societies have not faced lack of demand for feed procured The rate of growth of feed dealt in was higher in society B (42 48 per cent per year) followed by society 'A (10 per cent per year) and Society C (5 per cent per year) The performance of the societies measured in absolute figures also showed the same order of ranking

Only 20 27 per cent of the estimated demand was met by the three societies together during the study period It invariably means that private traders continue to keep their dominance over this business Society 'C met 50.74 per cent of the demand, Society 'B 34 98 per cent, while Society A

could supply only 8 47 per cent of the demand for concentrates

A comparison of average growth rates of demand estimated and supply revealed that the demand grew at a faster rate of 45 33 per cent while the supply lagged behind

Societies procured feed from two sources, namely, Co-operative Union and private agencies The total quantity procured was much higher from private agencies, due to inadequate production and irregular supply of feed by the Co-operative Union Despite that a higher price is being charged by the private agencies, the societies depend more on them which is for ensuring continued availability of feed The private agencies are known for their ability to supply feed in time

Decision as to the choice of brand to be purchased is normally taken by the secretaries though the right is vested with the Board of Directors Only in one of the societies, the Board members are consulted in this regard Both the farmers and the officials preferred the MILMA' brand of feed However the farmers preference is not properly reflected when private brands were dealt in as Society C alone provided farmers most preferred brand The complaints made by the Secretaries of other two societies against this brand were not

endorsed by the farmers Yet, giving room to the farmers perception going wrong on account of their getting too much influenced by the immediate milk boosting capacity of feed, the need for a scientific rating of different feed brands is felt Footing on the available information it can be said that farmers satisfaction and thus their preference for input services have been badly affected on account of the feed brand dealt in by two of the societies This is evident from the satisfaction/dissatisfaction index on the availability of preferred brand

An order placed will be met by the private agencies within 15 to 20 days The Co-operative Union supplies feed only once in a month While the former has maintained promptness in delivery, the latter defaulted considerably in this regard

There is no mechanism to verify the quality of feed at the time of its receipt in the godown Only after it is being used by farmers, some information on the quality is obtained Based on such information the societies get their lot replaced from private agencies if the lot suffers from serious quality complaint No such a replacement is possible in the case of feed supplied by the Co-operative Union

Stock out and excess stock occurred in the societies only due to the factors affecting the procurement of feed and never due to a drop or a sudden hike in demand for feed The failure of Co-operative Union to supply feed in time and supplying two or three months' orders together are the main reasons for stock out and excess stock Contrary to the claims made by the Secretaries, the farmers said that a number of times stock out occurred in their societies The farmers were highly dissatisfied in this regard

When compared with the Co-operative Union, the price charged by private agencies for feed is high They also give a higher retail commission but no portion of this commission is transferred directly to the farmers On an average, price of feed increased at the rate of 41 67 per cent per annum during the study period

Society A alone owns a good godown to stock the feed Office, books and records, milk collection equipments and feed are accommodated in one single room and in other two societies

It takes one to one and half months for a lot to be fully distributed to the farmers depending upon the size of lot The normal period of storage is one month The stock clearance pattern showed that 51 per cent of a lot is stored

for more than two weeks and 32 per cent is cleared only after three weeks In the first and last weeks of a month from the date of receipt of a lot the disbursement rate is high in all societies for various reasons

Instances of quality deterioration of feed, while in stock were reported both by officials and by farmers This kind of quality complaints have resulted in reducing farmers satisfaction over the input service of cattle feed supply Society C alone provided the brand of feed which farmers rated top on the basis of quality This underlines that the brand of feed dealt in by the societies is directly correlated to farmers' satisfaction on the supply of concentrates

Milk pouring members and non-members are the customers for feed sold by the societies on credit This helps in avoiding default in payment as the payment can be collected from the milk price due to these farmers This customer identification denies a genuine member of his moral right to purchase feed on credit when his animal is dry The argument that the concentrate feed is not required during dry period do not hold good as the farmers' experience is the reverse

There is only on selling outlet each for all the sample societies which is located in the premises of the society itself It is difficult for farmers drawn from

distant areas to purchase feed from this outlet and hence they are attracted to the private traders operating in their vicinity

The time at which societies supply feed falls within the regular office hours Due to many constraints, feed is not sold at the milk pouring time This puts the farmers in the difficulty of visiting the society again for purchasing feed, though they come twice a day for pouring milk

Societies sell feed only in full bag quantities and not in any small lots However genuine the reasons are, the fact remains that for farmers whose homes are far off and for those farmers whose animal herd size is small purchasing a full bag of feed is difficult and discouraging for many reasons

Selling price of feed is fixed by the supplying agencies concerned The price is higher in the case of private feeds when compared with 'MILMA brand of feed even after reducing the extra retail commission paid by the private agencies The sales margin on feed taken by the societies ranged from 4 8 per cent to 7 5 per cent of the selling price during the study period The margin was higher in those years when societies sold more of private feed The satisfaction index on the price charged by the societies

showed positive scale values of moderate order in all societies indicating that the societies are not exploiting them by charging a higher price

The farmers expressed their grave concern over the general up trend in the price level of feed Though there exists price competition in the feed market the price has increased almost five-fold during the study period Interestingly, the price of farmers' most preferred brand (KS feed), is the highest which implies that the brand choice of farmers is only a little influenced by the price criterion They fear purchasing a lower priced brand for reasons of quality apprehensions What the farmer prefers is to get the high quality feed at a lower price That is the reason why the farmers preferred MILMA brand of feed to KS brand

Payment for feed is collected in convenient weekly instalments from farmers Normally it is collected within three weeks In needed cases the Secretaries on their own, allow an extension of credit period So far, no bad debt has occurred on this account Farmers expressed a higher degree of satisfaction over the mode of collecting payment

Farmers expressed a reasonable degree of satisfaction over the attitude of Societies officials and staff when the former approach the latter as customers of cattle feed

The analysis of farmers preference for the input service of concentrate feed undertaken with eight satisfaction determining factors showed a grim picture The aggregate satisfaction index in this regard obtained a dissatisfaction scale value of 2 30 per cent for the whole sample It implies that farmers are neither satisfied nor that unsatisfied Society C alone achieved a positive scale value of 12 61 per cent which itself is a meagre level Out of the eight satisfaction determining factors only three scored positive scale values and the remaining five showed negative scale values Price charged by the societies mode of collecting payment and credit facilities, and the attitude of societies officials and staff were the three satisfaction determining factors that made positive results

Farmers' preference for purchasing cattle feed was studied also by comparing between societies and private traders Quality of feed price charged and mode of collecting payment and credit facilities were the satisfaction determining factors on which the societies performed better than private traders Farmers have almost an equal appreciation on the attitude of both the sellers However, private traders notably outdid the performance of societies on all other satisfaction determining factors, namely availability of preferred brand and brand choice continuous

availability of feed, supply of feed in convenient quantities and supply of feed at convenient time

Provision for veterinary services

Veterinary service is the second important input service provided by the societies Generally three kinds of services are provided which are-

1 Routine veterinary service
2 Emergency veterinary service, and
3 Artificial insemination services

The routine service is such that the doctors from the Co-operative Union visit societies once in a fortnight on a fixed day Farmers who bring their animal to the venue can avail of a free check up of their animals In deserving cases, the doctors can be taken home by paying Rs 25 in the society The programme is with certain novel aims but its realisation is under strain The very irregularity of the visit is the primary reason that deter the farmers from enjoying the service

If an emergency case arises, the farmer has to inform the Secretary who will communicate the matter to the veterinary wing of the Union A doctor will be sent to the spot and it is claimed that wherever the case be it will be

attended to within an hour of such intimation This is a creditable service but for the delay involved

Society A alone provided some assistance for artificial insemination of members animals It helps in procuring frozen semen and has made arrangement with local veterinary clinic for carrying out artificial insemination One-third of the cost is borne by the society But in the other two societies the doctors, on their routine visit, will undertake artificial insemination free of cost, if everything else is arranged This assistance is not much meaningful as it is a matter of sheer chance that the animals fall on heat on the days the doctors visit the society It suffers from the complaint that need and time of service does not match Another complaint is that the success rate of artificial insemination is low when compared with the natural process

In the sample, only 56 per cent of the farmers are aware of this service from the societies Moreover, 31 per cent of farmers alone make some use of this service Reasons for non-availing of this service are presented in Table 4 16

Supply of fodder seeds

Supply of fodder seeds is yet another input service provided by the societies Officials and farmers observed it a less important input service This is evident from the

quantum of fodder seeds supplied The highest quantum of fodder seeds was supplied in the final year of the study period which was sufficient only to sow 15 acres of land totally for three societies In the initial year the quantity procured was high expecting a good response from farmers The response itself was poor and for those who responded, the harvest was also poor This led to a subsequent reduction in quantity procured and supplied In some years quantity procured and supplied were equal as the officials compulsorily distributed seeds to farmers on the date of payment

Dairy Extension Offices and the Kerala State Co-operative Milk Marketing Federation are the agencies supplying fodder seeds to societies It was often because of the compulsion of these agencies that the sample societies procured and supplied fodder seeds

The officials openly admitted that supply of fodder seeds was not an important input service specific to the societies under study When 77 per cent of the respondents were aware of the provision of this service from their societies, only 24 per cent of them have made some use of it The motivation of some farmers in availing of the service was to utilise the fertilizers at subsidised rates a provision which was introduced only recently They diverted it for

other crops The main reasons in their order of importance for farmers not utilizing this service are given in Table 4 17

Feedback and democratic control on input service

The members providing feed back on input services and exercising their democratic control will be of immense use in improving the efficiency of such services But, 57 77 per cent of the respondents either rarely or never took up their problems and suggestions on input services with their societies While 10 per cent of them did so for reasons of ignorance, lack of empathy was the reason in the case of 14.44 per cent Another 33 33 per cent accused the management in this regard

The remaining 42 22 per cent of respondents provided feed back more through informal communication than the formal ways It is mainly to the Secretaries, farmers informally communicate as they visit societies twice a day for pouring milk However, only few of the respondents opined that the Secretaries initiated some actions based on their responses The Secretaries in turn held the view that though they have initiated actions it is due to the inaction of the Co-operative Union that the farmers feedback fail to produce desired results

Among the formal ways of feedback, general body meetings stand prominent Only society A conducted one annual general body meeting each per year While Society C failed twice in calling meetings, Society B failed thrice during the reference period

The effective attendance in the general body meetings was only 42 22 per cent A mere 17 78 per cent alone have regularly attended the meetings and only 15 56 per cent have raised their views on input services in such meetings The minutes of the meetings did not give any proof of having deliberated issues on input management Hence it can be inferred that the democratic rights of members are not fully exercised in making the input management function effective

Suggestions

Most of the problems faced by the primary dairy co-operatives in their input management services can be solved While the solutions to a few of them require additional financial commitment, most others need only proper initiation of action Hence, the potential for improving farmers satisfaction over these services as also societies business volume are tremendous Following are some suggestions to this effect

The dairy co-operative network should equip itself to

manufacture and supply more concentrates as a lion s share of market is under the domain of private sector This will help effectively checking the general up trend in price level of feed and also to make the economics of milk production favourable to farmers

The Co-operative Union should ensure timely supply and replacement of damaged stock which are the main attraction of primary societies to private agencies This will help avoid stock out situations While these demand some additional resource commitment efficient communication between primaries and Union which can prevent such stock outs may not require much financial resources The latter should intimate the former in advance as to how much quantity of feed it can supply in each month so that the former can make necessary procurement from private sources in order to insulate itself from nonavailability of feed

There should be arrangements to test scientifically each brand and to communicate the results to the farmers The merits and demerits of each brand so obtained are to be then passed on to farmers Synchronizing these information with their experience, the brand choice decision should be taken with due weightage to member involvement Though this is a bit difficult process, it may enhance societies' business volume and farmers margin

The purchase agreement should invariably contain a clause for replacement of damaged stock and compensation to farmers who used such quality-degenerated feed If any quality complaint arises action should be initiated according to this clause forthwith This will not only safeguard farmers interest but also vigil the manufacturers against the occurrence of such complaints in future

Price charged by the societies for feed should be made noticeably attractive by purposefully putting it lower to that of local traders This is possible in two ways One is to deal more in MILMA' brand of feed which is lower in price and comparable in quality to any other leading private brands Similarly low price brands with good quality can also be considered pending scientific assurance of quality The second option is to negotiate directly with manufacturers instead of depending on wholesale agencies so that societies can obtain feed at wholesale rate To achieve it all that societies have to do is to ensure a higher business volume Even from wholesale agencies the societies can enjoy a higher retail commission and better trade terms compared with a local trader depending upon the business volume offered by the societies A portion of this commission should be transferred directly to farmers in the form of reduced price for feed If manufacturers are not agreeable to selling feed at a reduced

retail price societies can make it attractive by introducing purchase rebate on feed These measures will increase the market share of societies from the present meagre level of around 20 per cent

Godown facilities in two of the societies should be improved with modern amenities Spread of moisture on feed should be prevented to the maximum In the present circumstances somehow the period of storage should be reduced by transacting two consignments instead of one in a month FIFO method of delivery may be adopted All these measures can prevent quality deterioration of feed while in stock A suitable scheme should be devised to provide feed with credit facility to all the genuine members during dry period also Otherwise members will develop a purely business like relation with co operatives and will be lacking the much needed co-operative loyalty

For the benefit of the farmers drawn from distant areas vechicular supply of feed can be thought of In every week on a fixed day the societies can supply feed at certain priorly determined points This may attract farmers who are presently dealing with private traders to the societies and thus additional business can be generated The additional income from it is expected to compensate the additional cost incurred If needed farmers can be charged a bit on account

of the transportation cost Yet they may find it convenient and economical to purchase from the societies

The possibility of selling feed at all times instead of fixed hours on a day may be considered It is desirable to reschedule the feed selling time so as to include 5 30 pm to 7 30 pm which is the most convenient time for farmers To this effect no additional staff need be appointed instead the working hours of one or two employees may be changed It will avoid milk contamination problems of space shortage etc

If the societies cannot sell feed in small lots by weighing and repacking another option can be considered The societies may request the manufacturers of feed to pack it in different quantities instead of sticking to 50 kg bags The manufactures may heed to this request if attractive business volume is assured

Care should be taken to see that routine veterinary service is taking place as per schedule Then only farmers can fully depend on this service

Delay in imparting the emergency service should be avoided to the maximum If due to such delay the farmer suffers a loss he should be compensated in addition to the insurance cover his animal may have In such cases a suitable inquiry should be conducted and if it was an avoidable delay

those who are responsible should be made accountable The compensation to farmers should be recouped from those who are found guilty Then only farmers can repose their full confidence in this service

On the line of society A the other two societies should provide facilities for artificial insemination of the members' animals

The service of fodder seeds can even be dispensed with by the societies under study If provided, it should be limited only to those who genuinely demand it In such cases proper education on the cultivation practices to be followed should also be imparted

Farmers should be informed of the actions taken by the societies on their feed back A formal system by which information can be collected from farmers on the different input services should be devised In this regard introducing opinion cards may be thought of General body meetings should be regularly conducted In order to ensure proper democratic participation of members, need for formal and informal co-operative education is emphasized here

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Appendices

KERALA AGRICULTURAL UNIVERSITY

COLLEGE OF CO-OPERATION AND BANKING

Department of Co-operative Management

SCHEDULE FOR INTERVIEWING THE FARMERS

(Confidential for academic purpose only)

1 Name

2 Main occupation

3 Income from sources other than dairying

a Salary b Wages c Agriculture

d Business e Shares f Others

4 Number of cows and the breeds(s)

5 The year in which you joined the society as a member

6 Do you currently sell milk to the Society?

Yes/No

Specify reasons

a

b

c

d

7 What are the regularly used feed ingredients?

		Kg	Value in Rs
a	Green fodder		
b	Dry fodder		
c.	Concentrate cattle feed		
d	Oil cakes		
e	Others		

8 What are the main input services provided by the co operative and enjoyed by you?

	Input services	Provided	Enjoyed
a	Supply of cattle feed		
b	Veterinary Services		
c	Fodder Seeds		
e	Others (specify)		

9 If the service(s) provided is/are not utilising why is it so (give reasons)? Also rank the reasons in their order of importance

1

2

3

4

Questions specific to the main input services

10 Which brand of cattle feed you are currently using and why?

Brand name

Reasons

a

b

c

d

e

11 Which other cattle feed brand(s) you have earlier used?

a b c d e

12 Rank the following cattle feed brands in your order of preference

1	KS	2	OK	3	Goldmohar	4	Amar	
5	Komarla	6	Vijay	7	SKM	8	Godrej	9 AVM

13 Compare your brand of preference with MILMA brand by allotting scores out of 10 on the basis of quality and price

Preferred brand Milma brand

14 a Sufficient number of brands are available in the society so that you can exercise brand choice or at least your most preferred brand is available

1 Strongly agree 2 Agree 3 No opinion
4 Disagree 5 Strongly disagree

b What are the factors that influence your choice behaviour? Rank them in the order of importance

1 Price 2 Milk yield 3 Health of animal 4 Feed acceptability to cattle 5 Compensation package in case of quality complaints 6 Availability 7 Quality of gunny bags 8 Compliments attached to it

15 The society supplies only good quality feeds

1 Strongly agree 2 Agree 3 No opinion
4 Disagree 5 Strongly disagree

16 Allot score out of 10 each of the brands on the basis of quality

17 What are the factors that you consider while determining the quality of a feed? Rank them according to the order to importance

1 Milk yield 2 Health of animal 3 Feed acceptability to cattle 4 Colour 5 Odour 6 Others (specify)

18 Price of the feed supplied by the society is always affordable to you

1 Strongly agree 2 Agree 3 No opinion
4 Disagree 5 Strongly disagree

19 The mode of collecting payment for the feed you purchased is acceptable and convenient to you

1 Strongly agree 2 Agree 3 No opinion
4 Disagree 5 Strongly disagree

20 Do you have suggestions for improving the mode of collecting payment so that it will be more acceptable and converient to you? Rank the suggestions according to the importance you attach to them

a
b
c
d

21 You are always getting the feed as and when demanded and there is no time delay

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

22 What changes do you recommend to make available the feed in time? Rank them according to their order of importance

a

b

c

d

23 You are satisfied with the society s policy of selling only in full-bag quantities

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

24 What changes do you recommend to improve the service of the society as to the quantity supplied? Rank them according to the order of importance

a

b

c

d

25 The attitude of the society s officials and staff is always good and pleasant so that you do not have any problem in availing of the input services provided by it

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

26 List the difficulties if any that you experience from the behaviour of officials and staff and rank them according to the order of seriousness

a

b

c

d

27 The input services of the society are good when compared with the private traders in your locality

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

28 Compare the co operative society and the private trader against each of the following satisfaction determining factors by allotting scores out of 10

Factors	Society	Private traders
1 Availability of preferred brand and brand choice		
2 Quality of feed supplied		
3 Price charged		
4 The mode of collecting payment		
5 Availability of feed		
6 The time fixed for supply of feed		
7 Supply of convenient quality		
8 The attitude of staff/trader as the case may be		

Veterinary service

29 What are the veterinary services provided by the society?

a Doctor s service

b Artificial insemination facilities

c Medicines

d Others

30 You are getting the veterinary service in time

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

31 You are charged only reasonably for these services

1 Strongly agree 2 Agree 3 No opinion

4 Disagreo 5 Strongly disagree

32 You are satisfied with the quality of veterinary services provided by MILMA s doctors

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

33 What are the difficulties that you experience in availing of these service and rank them according to the orders of seriousness

a

b

c

d

Fodder seeds

34 What are the different kinds of seeds provided by the society?

a b c d e

35 These seeds are cultivable irrespective of the nature and type of land and without scale bias

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

36 These seeds are cultivable as an intercrop

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

37 These seeds are provided in appropriate time so that you can take advantage of the climatic conditions

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

38 These seeds are of good quality so that the yield is upto your expectations

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

39 You are able to cultivate these seeds as per the instructions

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

40 If the answer is in the negative indicate reasons

1

2

3

4

41 The price charged for these seeds are reasonable

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

42 You feel supply of fodder seeds is an important input service advantageous to the members

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

General issues

43 Depending upon the seasons the need for concentrate feed and oil cakes varies

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

44 Specify the seasons separately when this need increases and decreases

Increases	Decreases
a	a
b	b
c	c
d	d
e	e

45 Knowing this seasonality the society adjusts its stock of feed so that excess stocking and stock out are avoided

1 Strongly agree 2 Agree 3 No opinion
4 Disagree 5 Strongly disagree

46 You inform the management the various problems you face as regards the input services as and when they arise

1 Always 2 Occasionally 3 No opinion
4 Rarely 5 Never

47. If the answer is in positive how do you inform?

a At General Body meetings
b By written complaints
c By informally telling to the Secretary/Board members
d Other (specify)

48 If the answer is in negative why?

a
b
c
d
e

49 You feel that the officials and Board members take appropriate action as and when you inform them your problems

1 Strongly agree 2 Agree 3 No opinion
4 Disagree 5 Strongly disagree

50 If the answer is negative have you taken further steps to address your problems? Specify

a
b
c
d
e

51 How many GB meetings were conducted during the last year and during the last ten years

a During the last year
b During the last ten years

52 You attend the meetings regularly

1 Regularly 2 Occasionally 3 Rarely
4 Never

53 If the answer is in negative why?

a

b

c

d

e

54 If the answer is in positive, you participate in the deliberations of the meeting

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

55 If the answer to the above question is in negative why?

a.

b

c

d

e

56 You like to get the feed packed in small bags by the company than the present pattern

1 Strongly agree 2 Agree 3 No opinion

4 Disagree 5 Strongly disagree

57 If the answer is in positive what are the advantages you expect, and what is the appropriate lot size?

a

b

c

d

e

Appendix II

KERALA AGRICULTURAL UNIVERSITY

COLLEGE OF CO-OPERATION AND BANKING

Department of Co-operative Management

SCHEDULE FOR INTERVIEWING THE SECRETARIES

(Confidential for academic purpose only)

1 Name

2 Name of society

3 The year in which you took charge as Secretary

4 What are the different input services provided by the society and rank them according to the order of importance?

5. How much quantity of cattle feed did the society procure and supply during the last ten years (yearwise details)?

6 Number of pouring numbers during the last ten years (yearwise details)

7 What are sources of procurement of cattle feed and rank them in the order of preference?

8 Give the reasons in their order of importance for one source over the other(s)

9 How much quantity of feed was procured during the last ten years (source-wise break-up)?

10 Which is/are the brand(s) of feed you currently deal in and why?

11 Rank the different brands of feed in the order of your preference

12 Rank the reasons for such preference

13 How do you select the brand(s) of feed to be dealt in?

14 Whether the General Body is consulted before selecting a new brand or changing an existing one Yes/No

15 If yes, how? Explain the process

16 If No, why? Rank the reasons according to the order of importance

17 How do you assess the quantity to be procured?

18 What are the advantages that can be claimed over adopting the particular method that you have adopted?

19 What, according to you are the draw backs of this method?

20 Did this method ever result in an excess stock or stock-out situation?

21 What are the difficulties that you face in assessing the quantity to be procured?

22 How do you place an order with the supplying agencies?

23 What are the formalities and conditions that are to be accomplished while placing an order with different supplying agencies?

24 What is the normal time gap between placement of an order and receipt of its supply as far as different supplying agencies are concerned?

25 Rank the supplying agencies according to their promptness of service

26 How is the treatment of transportation charges, loading and unloading charges etc with respect to the supply by different agencies concerned?

27 How do you verify the quality of feed supplied by different agencies?

28 Whether stock-out or excess stock occurs in your society? If so, how many times it occurred during the last ten years (Give year-wise details)

29 Rank the reasons for stock out according to their order of importance

30 How it affects farmers and the business of the society?

31 How it affects farmers and the business of the society?

32. If the prices are different among various feed brands and among supplying agencies, how are they?

33 What are the payment conditions and credit facilities available in respect of each supplying agency concerned?

34 Give details about the godown facilities available

35 How much is the normal period of storage?

36 What is the method of delivery adopted?

37 How far quality deterioration occurs while feed is stored in godown?

38 What is the extent of damages due to such quality deterioration?

39 Rank the reasons for quality deterioration while in stock

40 Who are the customers for the feed you supply (customer identification)?

41 Do pouring members pouring non-members and non pouring members enjoy equal facilities in this regard?

42 How many selling outlets you have?

43 How far it is convenient for farmers to purchase from this/these outlet(s)?

44 Have you initiated any measure to ensure a better proximity if possible between farmers and selling outlet?

45 Is there any time restriction to sell feed to the farmers? If so, specify the time schedule

46 If such a restriction is imposed, rank the reasons according to their importance

47 How far the time fixed is convenient to farmers?

48 Do you sell feed in small lots? If yes, rank the reasons according to their importance

49 If no, rank reasons How far this practice is convenient to farmers?

50. How much is the cost of distribution?

51 How the selling price of feed is fixed?

52. What is the margin available to the society?

53 How do you collect payment from farmers for the feed sold to them? (Also give details of credit facility, if any available to them)

54 Who are the customers?

55 What are the different kinds of veterinary services provided?

56 What are the peculiarities and objectives of each of these services?

57 How are these services being arranged?

58 How do you charge the farmers for each of these veterinary services?

59 Give details of the number of members availing of these services?

60 If these services are not properly utilised by farmers give the reasons in the order of importance for each of the services

61 Do you feel that veterinary service is a very important input provided to farmers?

62 Do you supply fodder seeds? If yes, how much quantity was dealt in by the society during the last ten years (give yearwise details)?

63. What are the sources from where fodder seeds are procured?

64. Which are the varieties supplied and give their peculiarities?

65 How are they distributed to farmers?

66 How do you charge farmers for the seeds distributed and what is the margin taken by the society?

67 How many farmers are availing of this service (give ten years details)

68 What do you feel about the farmers response to this service?

69 What are the merits of this service?

70 What are the demerits of the service?

71 Do you consider this an important input service to farmers?

72 How do you collect feed back on input services from farmers? Give the formal and informal ways

73 How many General Body meetings were conducted during the last ten years?

74 Give details of attendance in such meetings

75 Give details of deliberations made in such meetings

76 Explain the various informal ways of feed-back collection

77 Specify other matters coming in this domain if any

Note The questions for this schedule are made open ended and flexible to elicit as much information as possible from the Secretaries Since there are only three Secretaries the detailed (as also less structured) information is not expected to pose any analytical problem

ABSTRACT

The study entitled 'Input Management in Dairy Co-operatives of Ollukkara Block was undertaken to examine the input management of dairy co-operatives, identify the farmers preference for input services, and identify the problems as also constraints in input management by dairy co-operatives

Three Anand pattern dairy co-operatives, falling respectively in the classes of well performing societies , 'satisfactorily performing societies and poorly performing societies', were selected from Ollukkara block of Thrissur district Thirty farmers each were drawn at random from these societies for gathering primary data While the primary data were collected in 1993 the secondary data pertain to a nine year period from 1984 Simple averages, percentages tabular method, priority index, satisfaction index and direct reporting comprised the methodology

The supply of concentrate cattle feed was the major input service in the sample societies Despite this about 80 per cent of the estimated demand for feed was met by the private sector

The societies too depended more on the private sector for procuring feed, thanks to the inadequate production and irregular supply of feed by the Co-operative Union The farmers were less satisfied over this input service because of reasons like unpreferred brands supplied quality deterioration stock out situations, inconvenient time schedule for feed supply non-availability of feed in small lots etc But as regards price, and mode of payment, they were satisfied Private traders outdid the societies on preferred brand brand choice, continuous supply of feed supply in small quantities and at convenient time

Only 56 per cent of the farmers were aware of the provision of veterinary service and 31 per cent alone availed of the service Mismatch between need and time of service, procedural complexities, irregularity of doctors difficulty in bringing animals to societies etc deterred farmers from using this service

Supply of fodder seeds too did not yield much response from farmers because of scarcity of land, poor crop, higher crop etc besides the abundance of natural fodder

The input management is to be made efficient by improving upon the various services in the interest of the farmers