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A NOTE ON THE STUDY OF VARIETAL PERFORMANCE OF SOYA BEANS

Soya bean being the richest and cheapest source of vegetable protein has made important strides in the North and Eastern parts of India. As far as Kerala is concerned this important pulse crop has yet to find a place in the common Agriculturist's field.

The manifold economic attributes make the Soya bean as the king among the Pulses. The pods contain as high as 40-46% protein. Being a leguminous crop the root nodules enrich the soil with Nitroegn. Soya bean is also used as a forage crop as well as green manure. The fresh beans are used as a vegetable while the dried ones are used in the preparation of portein rich food including soya bean milk.

The present programme was undertaken to evaluate the performance at Vellayani of the 24 varieties of Soya bean received from the Project Co-ordinator, Regional Reserch Station, I. A. R. I. Coimbatore. The seeds were sown in November 1974.

Observations on various economic attributes were recorded from 20 plants in each variety and the mean values presented in the following table.

The variety Hardee was the shortest and the variety E. C. 39824 the tallest with 15.3 cm. and 66.1 cm. height respectively. The mean number of branches varied from 2.1 to 20.3. Large variations was observed as far as length of branches is concerned. The mean length varied from 5.5 cm. to 24.5 cm. The number of fruit bearing axils increased with the increase in the number of branches. Number of pods per axil as well as per plant varied in the different varieties. It appears that the number of pods possesses a positive relationship with the total height and branches of the plant. The variety VP SS 46 had only an average number of 12 pods while the variety E. C. 39824 yielded on an average 105.1 pods per plant. The mean number of seeds per pod varied from 1.6 to 2.7. As a varietal character the 100 seed weight also varied according to varieties. The variety JN 2750 showed the maximum 100 seed wt (20 gm) while the variety V.P. SS. 69 showed minimum (12gm.)

From this preliminary trial it appears that the varieties E. C. 39824 and E. C. 39821 possess superior economic qualities in the agro climatic condition of this area compared to the other varieties.

Table 1

	Plant Height	No. of Branches	Length of Branches	No. of fruit bearing axil	No. of pods/ axil (Range)	No of pods/ plant	No. of seeds/ pod	100 seed wt.	Time taken for first flowering
V. P. SS. 29	21.3	2.8	5.5	11.4	1-5	25.2	2.2	150	39
Hill	25.3	5.3	6.2	17.6	1-4	34.5	1.6	15.5	M
Davis	20.6	5.7	11.5	15.1	1-6	34.0	2.7	16.0	37
Hardee	15.3	2.5	7.2	18.0	1-3	31.0	2.0	15.0	39
E. C. 39824	66.1	4.3	21.8	30.1	1-7	105.1	2.5	14.0	46
E. C. 39821	56.5	4.7	24.5	30.2	1-7	104.5	2.2	15.0	46
Improved-Pelicon	40.3	3.9	13.2	16.8	1-6	32.9	2.1	14.0	42
E. C. 14437	50.1	4.3	20.8	22.9	1-4	55.2	1.9	13.0	47
V. P. SS. 55	21.3	3.0	12.0	10.0	1-4	18.8	2.0	15.0	34
Jupiter	42.0	4.6	9.7	15.0	1-5	33.7	2.2	13.0	47
Bragg	45.8	3.4	7.7	14.3	1-6	36.7	2.1	17.0	37
J. 197/N. 49	35.0	4.0	11.3	16.0	1-4	34.8	2.4	14.5	39
Monelta	20.3	2.8	4.8	8.8	1-4	31.0	2.2	15.0	39
V. P. SS. 46	21.3	3.9	8.6	7.8	1-3	12.0	2.5	15.0	34
Wills	17.9	3.6	6.3	11.7	1-5	21.4	2.7	18.0	36
V. P. S. M. 229	26.3	2.8	6.1	8.4	1-6	18.8	2.1	16.0	45
Lee	19.1	2.4	8.5	8.6	[-5	21.1	2.3	16.0	36
V. P. SS. 69	61.5	4.8	19.5	20.5	1-6	64.8	1.8	12.0	34
V p. SS. 38	28.8	4.2	5.6	10.7	1-5	28.0	2.5	16.0	46
Nanda	34.8	2.1	14.6	19.8	1-7	62.0	2.0	16.0	46
J. N. 2750	24.7	3.7	6.4	8.7	1-6	21.3	2.4	20.0	39
J 231	17.4	20.3	9.4	9.8	1-5	25.4	2.0	19.5	39
J. N. 670	24.0	4.5	6.3	12.1	[-5	21.4	2.4	16.0	39
E. C. 2581	49.7	3.7	17.0	17.5	1-5	41.3	2.5	15.0	46

സംഗ്രഹം

ശരീരവളർച്ചക്കനുപേക്ഷണീയമായ മാംസ്യംശം ഏറ്റവും കൂടുതൽ (ശരാശരി 43.2%) അടങ്ങിയിട്ടുള്ള പയറുവർഗ്ഗത്തിൽപ്പെട്ട ഒരു വിളയാണ് സോയാബീൻ.

പോഷണമർമ്മയായ ഒരു മനുഷ്യാഹാരം, കന്നുകാലിത്തീറ്റ, പച്ചിലവളം എന്നീനിലകളിൽ കാർഷികരംഗത്ത് വളരെ അധികം പ്രാധാന്യമർഹിക്കുന്ന ഈ വിള, *Glycine max* (L.) Merr. അപരിചിതയായി കഴിയുകയാണ്.

മറ്റു സംസ്ഥാനങ്ങളിൽ ഉല്പാദിപ്പിക്കപ്പെട്ടതും മറ്റു രാജ്യങ്ങളിൽ നിന്നും ഇറക്കുമതി ചെയ്യപ്പെട്ടിട്ടുള്ളതുമായ ഇരുപത്തിനാല് സോയാബീൻ ഇനങ്ങൾ വെള്ളായണിയിലെ കലാപ സംഘയിൽ കൃഷിചെയ്ത്ത് *raraajayws* ഉല്പാദനശേഷിയെക്കുറിച്ച് ഒരു *microfwiz'ajomo* നടത്തിയതിൽ E. C. 39824, E. C. 39821 എന്നീ ഇനങ്ങൾ മറ്റുള്ളവയെ അപേക്ഷിച്ച് അത്യധികം ഉല്പാദനശേഷി ഉള്ളവയായി തെളിഞ്ഞിരിക്കുന്നു.

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