

*Agri. Res. J. Kerala, 1977, 15 (2)*

## LONGTERM STORAGE OF PADDY SEEDS

Being hygroscopic, paddy seeds absorb moisture rapidly from the surrounding atmosphere and this impairs germinability. Harrington *et al.* (1970) reported that seeds stored in polythene bags and rigid plastic containers remained viable for longer periods even under high humidity. The present study was initiated to find out how long paddy seeds could be stored in polythene bags without appreciable loss in germination. Seeds of five popular rice cultivars (vide Table 1) belonging to different plant types and maturity groups were stored in 700 gauge polythene bags and single jute gunny bags for a period of one year under ordinary storage conditions. The seeds were dried to 12 per cent moisture before storage. Samples from each bag were drawn at fortnightly intervals starting from the first fortnight after storage and percentage of germination estimated as per the procedure stipulated by the ISTA (1966). There were 4 replications.

The data gathered on germinability are presented in Table 1. The germinability of seeds of IR8, Annapoorna and PTB 10 dropped below the standard limit of 80 per cent from the 14th and that of ADT 27 from 15th fortnight after harvest, when they were stored in single jute gunny bags. Viability of Taichung (Native) 1. fell below this limit after the eleventh fortnight. Seeds stored in polythene bags on the other hand maintained standard germination percentage in all the varieties except PTB 10 and Taichung (Native) 1 even beyond an year. PTB 10 and Taichung (Native) 1 exhibited standard germinability only up to the 22nd fortnight. The study indicates that viability of paddy seeds can be maintained up to an year or more by storing them in 700 gauge polythene bags.

### സംഗ്രഹം

സാധാരണ ചാക്കുകളിൽ സൂക്ഷിക്കുന്ന നെൽ വിത്തിന്റെ അങ്കുരണശേഷി 7 മാസം കഴിഞ്ഞു നഷ്ടപ്പെട്ടപ്പോൾ പോളിത്തീൻ ബാഗിൽ സൂക്ഷിച്ചിരുന്നവയുടേതു് ഒരു വർഷം വരെ നിലനില്ക്കുമെന്നു കണ്ടു. വിത്തിന്റെ ജീവനക്ഷമത നീണ്ടുനില്ക്കാൻ ഇരുപതുമാസക്കാലത്തു സാധാരണയ്ക്കു അതിവാര്യമാണെന്നു മനസ്സിലായി.

### REFERENCES

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- International Seed Testing Association 1966. International Rules for *Seed Testing Proc. Int. Seed test Ass.* 31, 153,

Table 1

Germination percentage at fortnightly intervals of different varieties of rice, when stored in single gunny bag and polythene bags.

Date of harvest	16-2-68		16-2-68		17-2-68		15-2-68		8-2-68	
Varieties	IR 8		PTB 10		ADT 27		Annapoorna		T (N) 1	
Fortnight after harvest	Gunny bag	Polythene bag	Gunny bag	Polythene bag	Gunny bag	Polythene bag	Gunny bag	Polythene bag	Gunny bag	Polythene bag
11	88	91	92	98	95	96	96	98	84	98
12	85	90	91	98	93	97	95	98	85	96
13	81	93	91	98	89	97	92	98	54	96
14	80	92	55	98	87	97	83	99	48	96
15	79	89	74	96	83	99	24	98	41	96
16	62	88	70	98	55	97	13	98	9	97
17	46	90	3	97	11	97	0	97	3	96
18	40	89	4	95	8	96	0	97	1	94
19	20	89	2	92	4	98	0	97	0	94
20	20	85	0	87	2	97	0	96	0	88
21	1	90	0	83	1	95	0	94	0	83
22	2	97	0	80	0	97	0	95	0	80
23	0	92	0	78	0	96	0	93	0	78
24	0	90	0	70	0	98	0	90	0	72
25	0	88	0	58	0	96	0	88	0	70

\* value Significant at P = 0.05

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(M.S. received: 16-2-1977)