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A NOTE ON GERMINATING SEEDS OF PINEAPPLE
(*ANANAS COMOSUS*, Merr.)

Since most of the varieties of pineapple - *Ananas comosus* are self sterile (1) the question of germinating Pineapple seeds arises only in breeding programmes where interspecific or intervarietal hybridisation is involved. Pineapple seeds have a very tough seed coat and a hard flinty endosperm. So it is very difficult to germinate them without giving special treatments and environment. Collins (1960) has reported that treating pineapple seeds with concentrated sulphuric acid for 30-60 seconds before sowing is essential for uniform germination under Hawaiian conditions. Keeping the seeds, germination medium and trays under sterile condition during the initial stages of germination was also found absolutely essential for getting satisfactory results. Work in this line under Kerala conditions are not seen reported before. So an observational trial utilising the I₁ seeds of the cross of varieties of pineapple Kew x Ripely Queen was conducted at the Pineapple Research Centre, University Main Campus Trichur, Kerala, with the following five different treatments:

- I. Seeds treated in concentrated sulphuric acid for 30 seconds, sown in sterilized sand and kept in open laboratory condition at room temperature ranging from 20 — 28°C.
- II. Seeds treated in concentrated sulphuric acid for 30 seconds, sown in sterilized sand and incubated at 32°C.
- III. Seeds devoid of acid treatment sown in sterilized sand and incubated at 32°C.
- IV. Seeds devoid of acid treatment sown in ordinary sand without sterilization and kept in open field condition.
- V. Seeds without acid treatment sown in ordinary loamy top soil without sterilization and kept in laboratory condition at room temperature ranging from 20-28°C.

For all the above treatments, the germinating medium (sand or soil) was taken in shallow plastic trays. The seeds were sown in them and kept covered with sand and the whole medium was drenched with distilled water. The trays were also covered with polythene sheet to exclude dust and to maintain saturated condition above seeds. In each tray, 100 seeds were sown and germination counts taken at weekly intervals. The data on the number of seeds germinated at the end of each week are presented in Table 1.

Table 1

Duration	Treatments				
	I	II	III	IV	V
1st week	nil	nil	nil	nil	nil
2nd week	nil	5	1	ml	nil
3rd week	6	11	6	nil	nil
4th week	12	12	6	nil	nil
5th week	5	4	11	nil	nil
6th week	nil	nil	9	nil	nil
7th week	nil	nil	5	nil	nil
8th week	nil	nil	nil	nil	nil
Total	23	32	38	nil	nil

The data show that (i) sterilization of the medium is most essential for the germination of pineapple seeds without which not even a single seed germinates (ii) Incubation at 30 - 35°C is not very essential for germination under Trichur conditions provided seeds are treated with concentrated sulphuric acid and (iii) When incubation is given, seed treatment with concentrated sulphuric acid is not essential which can be evidenced from the results that maximum percentage of germination was obtained for treatment III where there was no seed treatment.

സംഗ്രഹം

കൈതച്ചക്കയുടെ വിത്തു കിളിർപ്പിക്കാൻ ഏറ്റവും അനുകൂലമായ സാഹചര്യങ്ങൾ ഏവയെന്നു കണ്ടുപിടിക്കാൻ ചോന്നി 'കൃ', 'റിപ്പിക്യൻ' എന്നീ rasn⁰ കൈതച്ചക്കയിനങ്ങൾ തമ്മിൽ സങ്കരണം നടത്തി ഉല്പാദിപ്പിച്ച സങ്കരവിത്തുകളും, വ്യത്യസ്ത മാധ്യമങ്ങളും, വിത്തുപചാരരീതികളും, അന്തരീക്ഷ താപനിലകളും ഉൾക്കൊള്ളിച്ചുകൊണ്ട് ഒരു നിരീക്ഷണ പരീക്ഷണം നടത്തി. ജീവാണുരഹിതമാക്കിയ മണൽ മണ്ണിൽ വിത്തു വിതച്ചു 32°C-ൽ സ്ഥിരമാക്കി നിറുത്തിയ താപനിലയിൽ സൂക്ഷിക്കുമ്പോഴാണ് പരമാവധി എണ്ണം വിത്തു കിളിർന്നതെന്നു കണ്ടു. ജീവാണു രഹിതമാക്കാത്ത മാധ്യമത്തിൽ ഒരാവിത്തുപോലും കിളിർത്തില്ല.

REFERENCE

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