

Recommendations for scientific community (in brief with title)

1. The effect of storage conditions, packing materials and seed treatments on viability and seedling vigour of onion (*Allium cepa* L.) seeds.

It is informed to scientific community that onion seed may be stored in cold storage ($7^{\circ}\text{C} \pm 2^{\circ}\text{C}$) condition packed with cloth bag or polyethylene bag (500 gauge) with seed treatment (Carbendazim 2g/kg seed or Mancozeb 2g/kg seed or Thiram 3g/kg seed or Neem leaf powder 10g/kg seed) or without seed treatment for a period of 2 years without deterioration in germination and seed vigour.

2. Seed viability in soyabean (*Glycine max* (L.) Merr.) under different storage condition and seed treatments.

It is informed to scientific community that soybean seed may be stored under cold storage storage ($7^{\circ}\text{C} \pm 2^{\circ}\text{C}$) condition in cloth bag with seed treatment of Mancozeb 2g/kg seed or Neem leaf powder 10g/kg seed for a period of 2 years without deterioration in germination and seedling vigour.

3. Qualitative and quantitative evaluation of seed vigour and viability by *Tetrazolium* test in pearl millet [*Pennisetum glaucum* (L) R. Br.].

It is informed to scientific community that pearl millet seed may be stored in air tight plastic containers for a period of 16 months without deterioration of germination and seedling vigour.

4. Performance of neem products on the storability of mungbean (*Vigna radiata* (L.) Wilczek.).

It is informed to scientific community that mungbean seed may be stored in normal condition packed in HDPE bags (500 gauge) with seed treatment of cloth bag and polyethylene bag (500 gauge) with seed treatment (Neem seed kernel powder 5 to 10 g/kg seed or Neem Cake 5-10 g/kg seed) for a period of 2 years without deterioration of germination and seedling vigour.

5. Effect of organic seed treatment on storability of wheat

It is informed to scientific community that wheat seed may be stored under ambient storage condition packed with cloth bag with seed treatment of Neem Leaf Powder @ 2-5g/kg of seed or Sweet Flag Rhizome Powder @ 2-5g/kg of seed or Neem Seed Kernel Powder @ 2-5g/kg seed for a period of 20 months without deterioration in germination and seedling vigour.

6. Heat stress mitigation through seed priming in wheat (*Triticum aestivum* L.)

It is recommended to scientific community to grow wheat variety GW 366 in late sowing condition with seed priming of salicylic acid 50 ppm (Hormonal Priming ((50ml/l) for 14 hours followed by shade drying recorded the highest grain and biological yield per plant to mitigate heat stress (2023-24).