

## Extension of shelf life of cotton (*Gossypium hirsutum*) seeds through polymer coating

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Storage and carry over of quality seeds in excess quantity for future planting is inevitable in cotton. Under ambient storage, viability and vigour has to be preserved until seeds are placed in soil during the ensuing season. Seed researchers have shown that seed coatings can improve, maintain and prevent loss of viability and vigour even under ambient storage conditions. In this direction, studies have been conducted to elucidate the impact of polymer seed coating on storability of cotton cv. Sumangala at Central Institute for Cotton Research, Regional Station, Coimbatore. Delinted seeds were cleaned and upgraded by water floatation technique and its germinability was tested before coating. Seeds were uniformly coated with polymer (Polykote and Polyloc) which is a liquid based pink colourant, easily water soluble, fast drying and biodegradable. The seed coating combinations were polymer alone @ 3 ml/ kg; polymer combined with thiram 75% WDP @ 2.5 g/ kg; polymer with thiram and super red @ 5 ml/kg; polymer with vitavax 200 (Carboxin 37.5% + Thiram 37.5%) @ 2 g/kg; and polymer, thiram, super red and cruiser WP @ 5 g/kg. Seeds were packed in cloth bag and polythene bag (700 gauge) and stored for 26 months under ambient conditions. The periodical observations revealed that seed coating helped in percentage increase in seed weight, control of loss in germination and vigour better seedling length, dry matter production of seedling and field emergence throughout storage period as compared to uncoated seeds stored in both the cloth and polythene bags. Coating the seed with polymer @ 3 ml/ kg along with thiram @ 2.5 g/ kg, super red @ 5 ml/kg and cruiser @ 5 g/kg was seen as the best treatment for ambient storage conditions.



*Delinted seeds*



*Polymer coated seed*