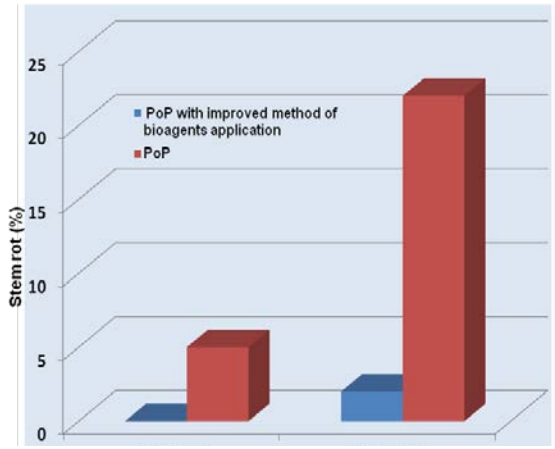
Improved method of application of *Trichoderma harzianum* and *T. viride* brought significant reduction in stem rot incidence in groundnut

Stem rot is of considerable economic significance for groundnut grown under rain-fed as well as irrigated conditions in all parts of India with a yield loss up to 27%. Sclerotia produced by *Sclerotium rolfsii* are extremely hardy and off-season survival structures and are the principle means of dispersal. In addition to stem rot, the pathogen causes pod rot, a serious disease in groundnut and up to 30 per cent yield losses were recorded in farmers field.

Deep summer ploughing, crop rotation, soil solarization, mouldboard ploughing, planting date in combination with cultivar selection, planting in raised beds, bioagents and fungicides are in recommendations to reduce the severity of the sclerotium stem disease in the field. Nevertheless, management of the diseases in the field is still challenging due to the absence

of profitable rotational crops, a lack of fresh tillable land, poorly structured farm programmes, un-decomposed previous crop residues in the field act as substrate for the fungal growth, tolerance of the pathogen to the fungicide and non-availability of resistant varieties to the groundnut growers.



Stem rot incidence in POP vs. POP with improved method of bio agent application

Improvement in method of application of bio-agents, *Trichoderma harzianum* and *T. viride*, brought significant improvement in stem rot management. Farmers were recommended to adopt 'seed treatment of *T. viride* or *T. harzianum* @ 10g per kg seeds followed by soil application of farm yard manure 50 kg enriched with 4kg bio-agents at the time of sowing, 40 DAS and 70 DAS' reduced the stem rot disease.

Several farmers in the Saurashtra region adopted this recommend technologies during *kharif* 2014 and 2015. In general, the disease incidence ranged from 5% to 22% in the famers field, where as, below 2% diseases incidence was recorded in farmers' field those adopted the seed treatment and soil application of bio-agent.

By adopting this technology, farmers could save about 200kg in-shell groundnut per ha from the stem and pod rot disease. An investment of about Rs 1500 for bio-agents could save about Rs 10,000 worth groundnut in-shell