Seed treatment- An innovative approach for improving crop production and sustainability in environment

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The concept of seed treatment is the use and application of biological and chemical agents that control or contain primary soil and seed borne infestation of insects and diseases which pose devastating consequences to crop production and improving crop safety leading to good establishment of healthy and vigorous plants resulting better yields. Presently, 70% requirement of seed is met from the farmer’s own stock which goes for sowing without seed treatment. Even if seed is sourced from the private or public sector agencies, except hybrid seeds, large percentage of such seed is untreated. The estimates reveal that on an average, 80% of the seed sown in the country is untreated, as against the 100% seed treatment practice in developed countries. Seed treatment not only protects the seeds from seed and soil borne diseases but also gives protection to the emerged seedlings from sucking insect pests affecting crop emergence and its early growth. However, many farmers in the country are neither familiar with the practice nor follow it. The practice of seed treatment is also IPM compatible. However, seed treatments should not be considered as a cure for all maladies for the selection of poor/unhealthy seed lots. For example, treatment of seeds with excessive mechanical damage or other damages or seeds kept in poor storage conditions, or genetic differences in a variety will not increase seed germination. This technique helps the crop to improve germination, gives a healthy crop stand, maintain its resistance to diseases and pest as well as it also helps in reducing the use of chemical fertilizers which ultimately saves the environment and human health also.

Biography
Amit Kumar Patel has completed his MSc (Agronomy) degree at the age of 23 years in 2012-2013 from Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh. He has published more than 5 papers in reputed journals and some technical articles.