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Pesticide residue Analysis in pea samples available in Hilly areas of Himachal Pradesh (Solan, India) (Conventionally and organically raised) by coupling QuEChERS technique with GC-MS

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Abstract

Pea is most popular and widely grown, annual pulse grain playing an important role in the upliftment of the economy of hilly area farmers. The application of chemical pesticides have increased in recent time, but has gradually contributed to increased environmental hazards, soil deterioration, thus disturbing the beneficial microbes and biological balance, leading to various dreadful diseases like cancer. Keeping in view the above burning criteria, the studies were conducted focusing on the in-conversion phase of a chemical cultivation system to an organic cultivation system. The results highlight the various parameters like soil health and pesticide residual analysis and their differential behaviour in both the systems (Chemical and Organic). A baseline survey was conducted for comparing differences in behaviour of farmers towards in-conversion phase for which SOGG group (Salogara Organic Growing Group) of Solan-HP was taken in to account, whereas Basal area farmers were selected or chemical cultivation pattern of pea cultivation. A comparative analysis was drawn between two systems. The GCMS analysis highlights the residue of Dinocap (0.58 ppm) in market pea sample and Propiconazole (0.037ppm) in chemical pea sample were above the MRL limits and no pesticide residues were found in organic pea samples. The pesticide residues were not found in the organic samples and they were above the limit or at par in the chemical pea samples and market pea samples.

Biography:

Gaurav Sharma has completed his Masters of Science in Microbiology at the age of 24 years from Shoolini University of Biotechnology and Management Sciences, Solan, Himachal Pradesh, India and pusuing Ph D Microbiology from Shoolini University of Biotechnology and Management Sciences, Solan, Himachal Pradesh, India, 173229

Speaker Publications:

1. Pesticide residue analysis in pea samples available in Hilly areas of Himachal Pradesh (Solan, India) Article Id: BKAP95 | Page: 102-105
2. Sharma, Gaurav & Thakur, Nitika. (2017). ABSTRACT Pesticide residue Analysis in hilly pea samples (Conventionally and organically raised) by coupling QuEChERS technique with GC-MS.

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