

Jimson Seed in Bio pesticide Application (*Datura Stramonium*)

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Abstract

The purpose of this article was to examine the use of jimson seed (*Datura stramonium*) as a bio pesticide.

The global picture of post-harvest losses of grain and pulse crops is estimated to be 10%, largely owing to insect pests, which is a major problem in underdeveloped nations. Pesticides are compounds or mixtures of substances used to prevent, eradicate, repel, or mitigate pests, such as unwanted plant or animal species, during the production, storage, transit, distribution, and elaboration of food. Synthetic pesticides have a long-term and aggressive impact on the environment and human health. Every year, synthetic pesticides cause a slew of health problems for humans around the world. Aside from its highly ecologically friendly behaviour, Jimson seed offer a promising biopesticide effect in crop productivity and protection against several pests. Its abundance, ease of application, and lack of health hazards make it a better alternative than synthetic pesticides. The extraction of atropine from Jimson seed took place in four phases. Pre-treatment, extraction, separation, and concentration are the four steps. For the suppression of crop weevil, atropine from Jimson seed can be extracted with water or inorganic acidic extraction.

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Received: 3-Apr-2022, Manuscript No: acst-21-47826, **Editor assigned:** 6-Apr-2022, PreQC No: acst-21-47826(PQ), **Reviewed:** 11-Apr-2022, QC No: acst-21-47826, **Revised:** 17-Apr-2022, Manuscript No: acst-21-47826(R) **Published:** 25-Apr-2022, DOI: 10.4172/2329-8863.1000504

Citation: Awulachew MT (2022) Jimson Seed in Bio pesticide Application (*Datura Stramonium*). Adv Crop Sci Tech 10: 504.

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that is quite thorny. Simple, stout, and mainly upright stems. The leaves are big, about 20 cm long, oval in shape, and have a wavy, coarsely dentate edge. The root is long, thick, tapering, and branching in certain places. *Datura* is a plant that may be found all over the world. The plant can be found on sandy flats, plains, and elevations of up to 2,500 feet. The origin of *Datura Stramonium*

in storage are covered with Atropine or crude Jimson oil, this ability is known as oviposition prevention, and it comes in useful. The insects will no longer feed on them after this treatment. Further damage to the grains will be prevented, and the female will be unable to lay eggs throughout her life cycle's egg-laying period.

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Pollution of the environment and health risks from the presence of synthetic pesticide residues in food and fiber are also big issues. Biopesticides are not likely to cause such issues. This is because biopesticides are less harmful than chemical pesticides because they do not leave harmful residues, generally target one specific pest or a small number of related pests versus broad spectrum chemical pesticides that affect, in addition to the pest, other beneficial insects, birds, mammals, or non-target species, are effective in smaller quantities, decompose quickly and do not cause environmental problems, and are often cheaper than chemical pesticides.

References

1. Roser M (2018) Pesticides this is only a preliminary collection of relevant.
2. Isbn MS (2011) Pesticides in the Modern World - Pesticides Use and Management pesticides in the modern world – pesticides use and Edited by Margarita Stoytcheva. Intech Open 32: 1-6.
3. WHO (2008) Children's Health and the Environment. World Heal Organ 8:1-62.
4. Yadav IC, Devi NL (2017) Pesticides Classification and Its Impact on Human and Environment. Int J Curr Microbiol App Sci 2: 1-7.
5. Hallauer AR, Miranda Filho JB, Carena MJ (2010) Hereditary variance: mating designs. In quanti gen in maize bre: 81-167.
6. Hill WG (2010) Understanding and using quantitative genetic variation, Philosophical Transactions of the Royal Society B. Biolog Sci 365: 73-85.
7. Johnson GR, King JN (1998) Analysis of half diallel mating designs me: a practical analysis procedure for ANOVA approximation. Silvae Genetica 47: 74-79.
8. Kearsey MJ, Pooni HS (1996) The genetical analysis of quantitative traits. Recent res sci technol 9: 34-56
9. Khan SA, Ahmad A, Khan A, Saeed M (2009) Using line x tester analysis for earliness and plant height traits in sunflower (*Helianthus annuus L.*). Recent res sci technol 1: 202–206.
10. Clerg EL (1966) Significance of experimental design in plant breeding. Significance of experimental design in plant breeding. Biolog Sci 365: 72-86.