

Bio efficacy of grain Protectants on larval and pupal period of sitotroga cerealella (grain moth)

S. P. Srivastava¹, Saurabh Mishra²

¹Department of Zoology, P. P. N. College, Kanpur, U. P. India.

²Department of Biotechnology, S. L. Education Institute, Moradabad U. P. India.

Abstract

The maximum larval period of pest (33.45 to 18.25), which are significant with each other. The pupal period of the sitotroga-cerealella (grain moth) highest pupal period 11.68 days was in seed kernel powder. The minimum pupal period (3.01) was recorded.

Keywords: Bio Efficacy, Neem, Larval Pupal, Mahua Seed.

Introduction

The cereals barley is most important crop of India and serves a major source of food grain. It is grown in 1.71 lac hectares of land with an annual production of 3.76 lac hectares of area with 11.23 lac. metric tonnes production. out of the total of grain 7% is stored traditionally by the farmers for their own consumption seed and wages and rest above 20% surplus food grains are handed over to traders and government in agencies in our country.

Material and method

The collection of adults for mass rearing was made from local granaries of an agriculture university Kanpur. The insect, thus collected were carefully examined for their taxonomic characters. further the mass rearing for breeding of individual was carried on the barely grain in plain glass jars of 2kg capacity and mouth of glass jars were covered with muslin cloth and tied with help of rubber bands. The Glass jar were kept at the room temperature in entomology laboratory till the emergence of fresh adults newly emerged 1st to 5days old adults were taken as parental population through the course of study with view to study the larval period a site of another experiment was carried out and observation were recorded daily to note the actual timing of pupation by breaking the grain of each treatment. Efficacy of grain protectants on larval period and pupal period of entirely cerealella (grain moth)

Result and Discussion

The treatment seed kernel powder and neem oil showed their superiority over all other treatment being. The maximum larval period of pest (33.45 to 18.25), which are significant with each other. The pupal period of the sitotroga-cerealella (grain moth) highest pupal period 11.68 days was in

need seed kernal powder. The minium pupal period (3.01)was recorded. In bissialatifolia roxasb which was at par with the uncheched (3.91 Days). Similar result found. Neelam Bamola, Poonam Verma (dec. 2017) et. al, Subita das and Manavendra Dutta Choudhary (Jun. 2012) et al. Preeti Kumari, Chanwati Kumari (jun 2017) et al, P. Yudharaj, M. shankar (2016) et. Al, Joseph M. Agbeahunsi, Adeteju A. Adedini (Jan 2014) et al, Soma Roy, Bisweswer Banergee (2013) et al, minra Atwi, Erika-Krisztina Weiss (2014)et al, Parmeshwar L. saran bimal Lodaya (2018,) et al, Maurico Roberto Teves, Alejandra Ester Rotelli (2014) et al Somanjna Khatua, Payal Mitra (2014) et al Bikaram Singh Phalisteen Sultan (2016) et al, C. O. TETTEY A. O. et al (2014), Dixit AK, Pandey Alok (2008) et al, Vaman Kama talukdar(2006) et al, Dwivedi SC Garg (2013) et al, Alice j, Sujata RP (2013) et al, srivastav S P, A K Pandey (2007) et al, N. D. Dwivedi, S. Shukla (2005)et al, Khatun M Monera 2012 et al also recorded.

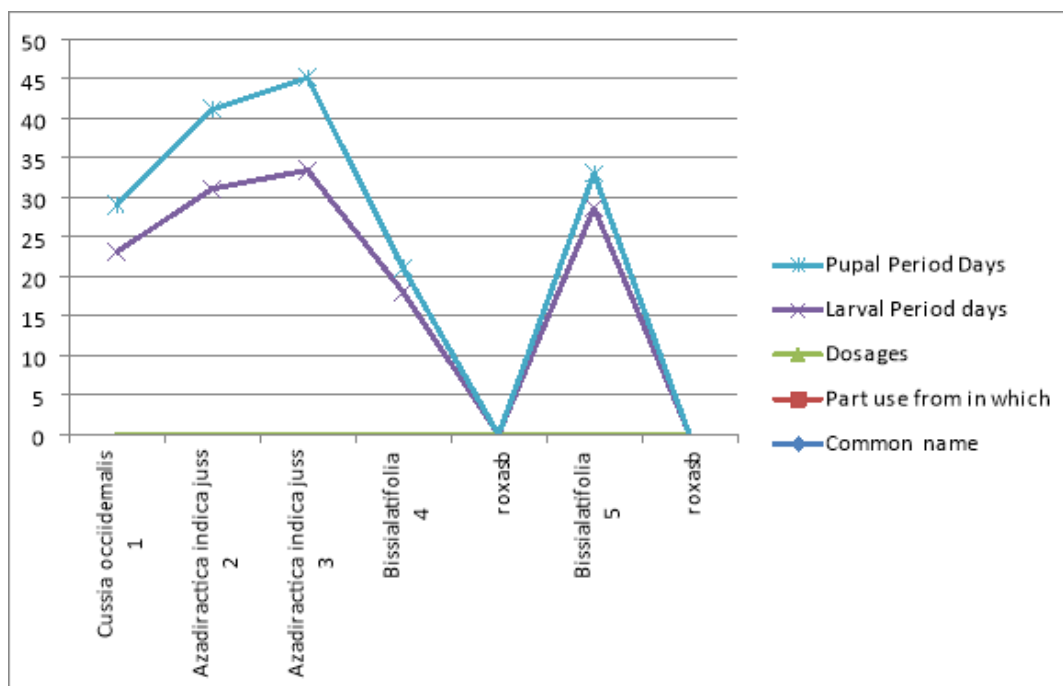
Table 1.Efficacy of grain protectants on larval period and pupal period of Sitotroga

S. No	Treatment	Common name	Part use from in which	Dosages	Larval Period days	Pupal Period Days
1	Cussia occiidemalis	Kasaundi	Seed	15 gm	23.07	5.96
2	Azadiractica indica juss	Neem	Oil	15 ml	31.07	10.05
3	Azadiractica indica juss	Neem	Seed	15 gm	33.45	11.68
4	Bissialatifolia roxasb	Mahua	Oil	15ml	18.05	3.07
5	Bissialatifolia roxasb	Mahua	Seed	15 gm	28.67	4.33
	Control				18.00	3.91

Cerealella (grain moth)

S. E. Deference ± 0. 531 0.201

C. D. at 5% 0. 937 0.631



Graph 1. Efficacy of grain protectants on larval period and pupal period of *Sitotroga cerealella* (grain moth)

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