

Records of Lepidopteron Borers (Lepidoptera) on Stored Seeds of Indian Himalayan Conifers

Authors : Pawan Kumar, Pitamber Singh Negi

Abstract : Many of the regeneration failures in conifers are often being attributed to heavy insect attack and pathogens during the period of seed formation and under storage conditions. Conifer berries and seed insects occur throughout the known range of the hosts and also limit the production of seed for nursery stock. On occasion, even entire seed crops are lost due to insect attacks. The berry and seeds of both the species have been found to be infected with insects. Recently, heavy damage to the berry and seeds of Juniper and Chilgoza Pine was observed in the field as well as in stored conditions, leading to reduction in the viability of seeds to germinate. Both the species are under great threat and regeneration of the species is very low. Due to lack of adequate literature, the study on the damage potential of seed insects was urgently required to know the exact status of the insect-pests attacking seeds/berries of both the pine species so as to develop pest management practices against the insect pests attack. As both the species are also under threat and are fighting for survival, so the study is important to develop management practices for the insect-pests of seeds/berries of Juniper and Chilgoza pine so as to evaluate in the nursery, as these species form major vegetation of their distribution zones. A six-year study on the management of insect pests of seeds of Chilgoza revealed that seeds of this species are prone to insect pests mainly borers. During present investigations, it was recorded that cones of are heavily attacked only by *Dioryctria abietella* (Lepidoptera: Pyralidae) in natural conditions, but seeds which are economically important are heavily infected, (sometimes up to 100% damage was also recorded) by insect borer, *Plodia interpunctella* (Lepidoptera: Pyralidae) and is recorded for the first time to author's best knowledge; infesting the stored Chilgoza seeds. Similarly, Juniper berries and seeds were heavily attacked only by a single borer, *Homaloxestis cholopis* (Lepidoptera: Lecithoceridae) recorded as a new report in natural habitat as well as in stored conditions. During the present investigation details of insect pest attack on Juniper and Chilgoza pine seeds and berries was observed and suitable management practices were also developed to contain the insect-pests attack.

Keywords : borer, chilgozapine, cones, conifer, Lepidoptera, juniper, management, seed

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