

PROJECT PROFILE

Title of the Project	:	Biology, Ecology and Management of the Casuarina Seed Pest, <i>Bootanellus orientalis</i>
Principle Investigator	:	Dr. A Balu, Dr. John Prasanth Jacob
Co Investigators	:	Dr. A. Nicodemus
Duration of Project (Start & End)	:	4 years (01-04-2016 to 31-03-2020)
Objectives		<ol style="list-style-type: none"> 1. Studies on biology and ecology of <i>Bootanellus orientalis</i> in casuarina seed orchards and other seed sources 2. Development of management strategies through chemical and botanical pesticides
Funding agency	:	ICFRE
Summary/Achievements	:	<p>Seed pest <i>B. orientalis</i> infestation on casuarina seeds varies at different locations. <i>B.orientalis</i> egg laying maturation and emergence synchronizes with the flowering, cone maturation and dehiscence of Casuarina. Infested seed showed higher level of total carbohydrate. Seed samples from districts with low levels of infestation recorded low carbohydrate levels. Total phenol content was high in seeds from district with no infestation. Significant reduction in the seed pest infestation level was observed by soil application of phorate and foliar application of Chlorpyrifos, Thiamethoxam, Acetamapride and Spiromecifen besides neem oil formulation 30 days after bud initiation. Germination percentage of seeds collected from treated plants showed no variation compared to control, Seed vigor index was also on par with the control. By deploying the need based and timely application of safe pesticides availability of pest free seeds of Casuarina from seed orchards will increase and casuarina growers will be able to increase the productivity.</p>