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PRODUCTION OF APPROPRIATE FOOD: sufficient, safe, sustainable

Experimental protocol about of Olyset Net application containing permethrin to protection the grain harvest in the rural magazine from insects.

Institute of Environmental and Agricultural Chemistry

Institute of Entomology and Vegetable Pathogens

UNIVERSITÀ CATTOLICA DEL SACRO CUORE DI PIACENZA

OBJECTIVES OF RESEARCH

The aim of this study is to evaluate the insecticide and repellent effective of Olyset net placed over juta bags containing the seeds. Their application could be prevent or reduce infestations by insects.

OPERATIVE INSTRUCTIONS

- The networks has a low mechanical strength and can NOT be considered itself a lot. Avoid excessive stresses of the network that could cause abrasions with possible breakage and a consequent reduction in effectiveness.
- It should cut it in the appropriate measures (which depend on the size of the bags that you have to wrap) and sew the bag closely, taking care not to leave NO exposed portion. At the top of the bag (next opening) the network needs to be a bit longer to allow for the closure of the bag according to the usual rules adopted in the area. All surfaces exposed (bag / grain) in the thesis with the application of the network will be protected by the network as possible.
- Identify each bag with an acronym (eg A1, A2, A3 bags wrapped in network and B1, B2, B3 for controls). Control is defined as a thesis with bags not covered by the network.
- Depending on the size of the bags used and the availability of the network to determine the number of bags to be prepared for the experimental evidence. An equal number of bags to be used as a control. However predict for each thesis from a minimum of three to a maximum of five replicas for the data obtained can be processed statistically.
- Select a batch of product (grain) frequently present in the area (cereal/legume) homogeneous enough to fill all the bags selected (surrounded by the network + controls). It is recommended to use a product is NOT haunted.
- Fill all the bags with the same amount of product.
- The networks must be applied only within the local protected from sunlight and rain (warehouse).
- Inside the warehouse chosen have the bags in the normal manner of management of post-harvest. The bags are surrounded by the network must be separated from the controls in harvest to avoid any cross-media effects. The use of the network must take place in a closed, ventilated place, away from direct heat sources such as solar radiation that could cause loss of efficacy.



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Sampling and control:

- The sampling is done by taking a precise quantity of product (at least 500 g of product) with a measuring cup.
- Regular sampling should be done (every 30 days) from each lot different rates at different points in the bag (surface, mid-height, bottom, sides of the bag). At the end of each sampling randomly reposition all the bags inspecting them ONLY during the sampling dates set in advance. Remember to keep the controls away from the bags with the network.
- The test should last about 180 gg.
- Look closely at ALL the material gradually pouring the sample into a tray at the bottom of a clear and noting the number of insects observed (living and dead) and the date on a notepad.

NOTES

Write in the note-book all details about the trial as the date of beginning and end of the experiment; sampling date , number of arguments made (and their abbreviations), product type (cereal / legume) with the doses used; modes closing bags, types of bags in the storage position; any unforeseen factors emerging during the trial. Also describe the characteristics of the warehouse chosen for testing (time and materials of construction, years of actual use as a storage area for products, the presence of fissures / cracks in the walls of internal / external type of stored products; mode of preservation of the most frequent problems encountered during the last years eg . rodents, insects, mold, number of openings to the outside; degree of isolation from the outside, often the solutions adopted for the protection / pest control by parasites *). If you can bring all this data in a schematic way in a spreadsheet (.xls). Documenting each stage of the trial if possible by photographs.

* DO NOT make any kind of treatment against parasites before and during the experimental proof that must be performed in the most frequent and the real in the area.