

INTEGRATED PROTECTION

is also relevant for insects

To control insects in grain, farmers have less equipment at their disposal than storage organisations. However, they can combine different integrated approaches to protect grain, explains Marine Cabacos, a scientist at Arvalis's Grain Storage Unit.

Perspectives Agricoles: What are the differences between the situation on farms and in storage organisations?

Marine Cabacos: Sanitary issues are similar in both cases. The amount of grain involved is generally smaller on farms, but the harmful insects are the same. Farmers rarely own cleaners that remove a large proportion of adult insects from the grain by sucking them up, and reduce the emergence of hidden forms through mechanical contact. They also rarely have their own dryer, the high temperature of which also increases insect mortality. However, they do have means of controlling insects at their disposal.

P. A.: So, what arsenal is available to them?

C. M.: Control must focus on prevention before resorting to curative methods. That is the essence of integrated protection. Before the grain arrives, silos must be thoroughly cleaned, inside and out, including the silo's stand and the ventilation ducts. Waste must be removed immediately. If necessary, this physical cleaning process can be complemented by the use of insecticide.

Once the grain is in storage, ventilation must be used to cool it down progressively, in three stages (around 20°C in July/August, 12°C in September/October, then 5°C between November and January), in order to create unfavourable conditions for insects and their larvae.

P. A.: How can we know it is effective?

C. M.: Monitoring is key. Insect traps in storage premises help to detect their presence. Using temperature probes, the farmer manages the ventilation process as well as possible to ensure that the temperature isn't too high inside the batch, as this would encourage insect development. Curative solutions (contact insecticide, inert powders) will only be deployed if the risk is high.