Insect pest infestation is one of the yield-reducing factors in corn production. There are more than 50 species of insects recorded feeding on corn and attacking at all growth stages of the plants. It is therefore necessary for corn growers to be able to recognize at least the more important insect pests for them to decide on the appropriate management to reduce the pest population below damaging levels.

One of the most destructive pests of corn is the Asian corn borer (ACB) (*Ostrinia furnacalis* Guenee). Control of ACB is a major concern of corn growers, most especially sweet corn growers. ACB infestation reduces potential yield by an average of 52%.

One major control strategy is to apply chemical insecticides. However, the continuous application of insecticides has resulted in insect resistance, hence, the need to identify potential natural enemies as control measures. Among the natural enemies of ACB is the predatory earwig (*Euborellia annulata*) (Fig. 1), which has been comprehensively studied, particularly its biology, predatory consumption, and field abundance (Fig. 2).

**Effectiveness**

Researchers of the University of the Philippines Los Baños (UPLB) used different release regimens at one earwig per square meter, in tandem with detasseling or microbial application, to test the effectiveness of earwigs in suppressing ACB infestation.

The augmentative releases of earwigs (Fig. 3) effectively controlled the ACB infestation in corn. In both small- and large-scale field evaluations of green corn varieties, the interventions of earwig releases increased the corn yield by as high as 40%. With the use of earwigs, cost of production was reduced by 8% and 10% in open-pollinated varieties (OPV) and green corn, respectively.

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**Fig. 1. Earwigs**
For the green corn 'Asukar,' earwig release increased farmers' net income by 69% over that of the controls, and by 59% when using insecticide. For the 'Lagkitan' variety, increases in net income by 87% and 61% were obtained over the untreated control and complete reliance on insecticides, respectively. From the reduced or non-application of insecticides, savings of ₱200 and ₱600 (US$1 = ₱56), respectively, were realized per hectare.

Steps in rearing and releasing earwigs into the field

1. Mass-rear predatory earwigs in an artificial diet of 1:1 combination of dog food and ground corn cob.

2. Release reared third and fourth instar and adult earwigs at the rate of one earwig per square meter, usually in late afternoon.

3. Walk across the rows and place one earwig into the growing point of every fourth plant (hill) along the row, zigzagging through the length of the row and back to the starting point until 50 earwigs (for small-scale trial) are released into a 50-m² lot.

4. Follow the same distribution pattern for large-scale trials, releasing 250 earwigs into a 250-m plot.