Small BPH and its management

Recognize the problem
The small Brown planthopper (BPH) is a sucking insect. Damage observed are long bruises on leaves and leaves will wilt and blackened. Infested rice panicles will turn brown and damage could start from beginning of flowering until maturity.

Background
- Small BPH populations increase quickly and cause black sooty mold to grow which covers the rice flowers, reducing pollination and lowering grain fill.
- Small BPH infestation also creates suitable conditions for other fungal diseases.
- The small BPH is a vector of viral diseases such as rice stripe virus and black-streaked dwarf virus. Viruses acquired by small BPH will pass down to the next generation and continue the infection in the field.
- In Hung Yen, small BPH damage mainly occurs on flower and leaves. Damage is mainly seen on fragrant rice varieties e.g. TK 90, 415, 9605 BM. The pest also affects Northern fragrant varieties such as 7 and Khang Dan 18 but the severity is lower in comparison.

Management
- IPM is the effective way to control small BPH. Apply "3 DOWN; 3 UP" principles.
- Field sanitation. Remove weeds that serve as alternate hosts, such as barnyard grass, and clean up debris after harvest.
- Don't sow/transplant in high density. Thick planting increases humidity and needs more fertiliser which attracts more pests and diseases.
- Reduce the use of pesticides but increase the pesticides efficiency. To do this, we should do the following:
  - Only spray when necessary and start with class IV insecticides to protect natural enemies.
  - Insecticides to be used: thiamethoxam and pymetrozine for rice sown less than 40 days previously (kills fewer natural enemies). For fields with small BPH at instar 2-3, or more than 500 small BPH/m2 stand, use chlorpyrifos ethyl or buprofezin.
  - Remove rice plants showing virus symptoms properly to prevent spreading of viral diseases.

Scientific name(s) > *Laodelphax striatellus*

When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

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