Innovative Solutions Canada Program

Challenge EN578-170003/25: Innovative Device for Plant Pest Surveillance
Attachment 1
Questions and Answers #1 & 2

This document contains questions and answers related to this challenge.

Question #1:

Is the objective of the device to detect the above named species or to detect the volatile organic compounds associated with their presence?

The latter implies the former but the former does not necessarily require the later.

Response #1:

We want a device that detects:

- Volatiles released by the pest itself which could be aggregation pheromones (bark beetles, wood borers, grain insects), sex pheromones (moths), alarm/marking pheromones, etc.
- Volatiles release by the associated host plant or plant product due to presence of target bug. As plants can produce similar chemicals in response to different pests, the ability of a device to recognize/ID that chemical plus the ones produced specifically by the target pest would in theory provide a much more accurate identification and perhaps even increase sensitivity as it's not just general chemicals that are detected.

Question #2:

Would a device that detects the above named species without detecting their associated volatile compounds be deemed non-compliant?

Response #2:

The device must be able to detect volatiles released by the pest itself and/or volatiles release by the associated host plant or plant product due to the presence of the target insect.