

## Introduction to the Host Matrix

In previous years, CPHST has offered the Commodity (now renamed Host) Matrix as part of the CAPS Guidelines in the Analytic Hierarchy Process (AHP) Prioritized Pest List file. Over the past three years, CPHST has been revising and updating this file to create a more useful resource for the CAPS community. Previously, the matrix only included pests from the Pests of Economic and Environmental Importance List. The 2018 Host Matrix includes all CAPS priority pests.

### Hints on Using the Host Matrix Excel File

When you open the file, click “Enable editing” to be able to sort the columns. The agronomic and fruit/ vegetable hosts are on the first worksheet/ tab named “Commodity and Crop Hosts.” The tree and shrub hosts are located on the “Trees and Shrub Hosts” worksheet/ tab. To filter the hosts by a host of interest, click on the arrow underneath the host name. Then select only the triangle icon. This will sort the pests to only those that use the selected host as a major host. Pest lists filtered by host are a useful way to identify additional pests to include in bundled surveys. Pest lists filtered by host are a useful way to identify additional pests to include in bundled surveys.

### Other important information

#### Major Hosts

In the matrix, CPHST uses the same definition that is used to determine Major Hosts in CAPS datasheets and manuals. For the purpose of CAPS surveys, Major Hosts are hosts that are listed as major, primary, or preferred in the literature with information on economic or environmental damage. Major hosts are hosts on which high levels of damage have been recorded in primary literature and are therefore important to protect from an economic standpoint and are a likely place to detect early infestations of the pest.

#### Mollusks

In general, mollusks are not host-specific and they are best surveyed for along a potential pathway of introduction. For this reason, mollusks were not included in this matrix.

#### Weeds/Parasitic Plants

The only weed listed on the Pests of Environmental Importance List is a rangeland weed. Rangeland weeds are not necessarily associated with a specific host and were not included in this matrix. Other weeds may be associated with a specific agronomic host or cropping system. Parasitic plants, in contrast, are often associated with one or a few hosts. When the matrix is expanded to include all pests from the commodity manuals or additional pests are run through the pest prioritization process, information will be incorporated into the matrix for any weed or parasitic plant with specific host information.

#### Pests of Stored Products

Pests of stored products, such as *Trogoderma granarium* (Khapra beetle), are not included in the Host Matrix. These pests are not host-specific and they are best surveyed for along a potential pathway of introduction. For instance, Khapra beetle prefers grain and cereal products but will feed on almost any dried plant or animal matter. Khapra beetle surveys should be conducted in high-risk warehouses.