

News/What to Watch For:

Monitoring young foliage for aphid activity on the undersides of leaves, and watch apple foliage for powdery mildew.

Watch new apricot and peach foliage for small purple spots. These are infections from coryneum blight (shothole, the same disease that causes scabs on fruit. If seen, plan to apply a fungicide at petal fall and again at shuck split stage (when the fruit's papery covering splits off).

Resources to help you with pest management: *Fruit PestFinder app*, *Utah TRAPs app*, and *Utah TRAPs alerts*, starting on page 4.

JUST THE BASICS

APPLE & PEAR

- Commercial growers should hang *codling moth* traps to get biofix in a "hot spot." Also, start hanging mating disruption dispensers now.
- Get ready for *fire blight* (infects during bloom) by purchasing antibiotic spray (if your trees/orchard needs protection), and learn how to use the [TRAPs website](#) and new app to see when infections are predicted.
- *Powdery mildew* may show up after bloom.

PEACH/NECTARINE, APRICOT

- A treatment of Bt or spinosad at petal-fall can help reduce *peach twig borer* populations.
- Nectarine and plum growers who have had problems with distorted fruit will need to treat for *thrips* at petal fall with spinosad.

Backyard Grower Information

ALL FRUIT TREES

Aphids

Hosts: apple, peach/nectarine, plum, apricot

- **examine the undersides for aphids**
- **if present, use insecticidal soap or 1% horticultural oil to cover the aphids before leaves curl**

As soon as leaves are large enough to handle, turn them over on several shoots, and look for clusters of aphids near the base of the leaf. Treating them before the leaves start to curl is the key to success.



APPLE, PEAR

Codling Moth

Hosts: apple, pear

- **no action currently needed in northern Utah**
- **for southern Utah, start application on the following dates:**

Moab: May 1

Zion Canyon: April 25

Kanab: April 21

Materials to use include: Ortho Fruit, Flower, and Vegetable; spinosad products; Spectracide Triazicide; Sevin

Apple Powdery Mildew

Hosts: apple, pear

- **if PM has been a problem in the past, treat now and again 7-14 days later (after bloom)**

Backyard Grower Information, continued

PEACH/NECTARINE, APRICOT, PLUM

Western Flower Thrips on Nectarine and Plum

Hosts: nectarine, plum

- *treat right after bloom using spinosad*

If your nectarine or plum fruits were deformed last year, thrips was the likely cause. It is a tiny insect that feeds on the developing fruit from bloom time to petal-fall. Spinosad should be sprayed at night because it is harmful to bees when the product is wet (dry product does not affect bees). Just one application with thorough coverage is needed.



Thrips feed on young fruitlets, causing fruit later in the season to be deformed and russeted.

Commercial Grower Information

ALL FRUIT TREES

Aphids

Hosts: apple, peach/nectarine, plum, apricot

Unlike in spring of 2015, we have not yet found aphid populations in commercial orchards. They overwinter as eggs, and the cooler winter certainly helped to decrease overwintering survival of the eggs. There are several aphid species, and they all have similar life cycles, behave similarly, cause the same damage, and are managed the same.

Monitor your fruit trees as soon as the leaves are large enough to handle. Turn leaves over on several shoots, and look for clusters of aphids near the base of the leaf. Treating them before the leaves start to curl is the key to success.

Commercial growers can find a list of options by clicking [here for apples](#), and [here for peach](#).

On **apples**, the common aphid species are rosy apple aphid and green apple aphid. (No woolly apple aphids have been found and they will be discussed later.)

The green apple aphid is the more common of the two and it won't increase significantly until the warmer summer months. The rosy apple aphid is more of a problem in spring. They inject a toxic saliva during feeding, causing curled leaves and stunted and deformed fruits. They migrate out of the apple orchard to weed hosts in late June and July. Green apple aphids remain in the trees for the entire season.

On **peach**, the most common is green peach aphid. Populations will increase rapidly through spring, causing twisted, distorted, and chlorotic (yellow) foliage. They will eventually



green peach aphids are easy to spot on the undersides of leaves

form wings and migrate away from the trees to alternate weed hosts for the summer.

On **plum and apricot**, mealy plum aphid and plum leafcurl aphids are sometimes found.

On **cherries**, black cherry aphid is the most common, and is very easy to spot due to their dark color. They can build to high numbers, but are first noticed on suckers close to the base of the tree.

APPLE & PEAR

Codling Moth

Hosts: apple, pear

In the near future, we will provide exact dates at which to start treating for codling moth.

For those growers using mating disruption, **it is time to hang dispensers** now in northern Utah, so that the pheromone will saturate the orchard before the moths fly. It is still important to get a biofix for the site; hang the trap in a non-disrupted site for this. Monitor codling moths in disrupted orchards using the CM-DA lure.

continued on next page

Commercial Grower Information, continued

Apple Powdery Mildew

Hosts: apple, pear



apple PM may be visible during bloom, causing distorted foliage

The fungus that causes apple powdery mildew overwinters on twigs, and as a result, new infections can occur early in the season. Depending on weather conditions, it can become active at about the tight cluster to open cluster (pink) stage.

If you have had powdery mildew in the past, **treat at petal-fall** (Flint, Sovran, Rally, Topguard, Procure, Vintage) with a repeat spray 2 weeks later. [Click here](#) for more options.

Growers should be aware that PM fungal populations are becoming increasingly resistant to the DMI fungicides (group 3) (Rally, Indar, Topguard, Inspire Super). These fungicides have curative effects and are mostly used after mildew has shown up. By using a different product at the pink stage, use of these DMI products can be reduced, preventing further resistance. Powdery mildew spreads with high humidity, usually in the dawn or dusk hours, and does not need standing water to germinate. When terminal shoots hardened off and when days get drier, new infections slow down.

Some varieties are more susceptible than others (such as Braeburn, Gala, Gingergold, Jonagold, Jonathon, Rome). The Delicious varieties are the least susceptible.

Fire Blight

Hosts: apple, pear

For the next 10 days, the risk of fire blight infection is LOW to CAUTION for all areas of northern Utah. It looks like the risk this season will be if any late apple or pear flowers remain on the tree into May, when the temperatures are much warmer.

If the risk level for infection does increase to high or extreme while trees are still in bloom, you have a 24-hour window in which to apply an antibiotic. Most areas (except much of Utah County, which has resistance) can use the antibiotic, streptomycin, while areas that have resistance should use oxytetracycline.

PEACH/NECTARINE, APRICOT, PLUM

Peach Twig Borer

Hosts: peach/nectarine, apricot

Peach twig borers overwinter as young larvae in protected areas in the tree canopy. In early spring, they emerge and start feeding on foliage, "waiting" until the shoots expand (at which time, they bore into them).

While these larvae are exposed, they can be treated to help reduce the population. One **petal-fall** treatment of Bt (*Bacillus thuringiensis*) is very effective in reducing populations, and safe on bees.

Bt is a bacterium that must be consumed by young larvae to be effective. It can be mixed with the fungicide for the coryneum blight spray.

Commercial growers can find options by [clicking here](#).

If you are using the Isomate brand of mating disruption for PTB, dispensers can be hung any time. (These are the red loops. It is recommended to hang them well before biofix for better results.)

Coryneum Blight

Hosts: peach/nectarine, apricot, plum, cherry

Scout your orchard for new foliar infections. **Treat with a fungicide at petal-fall** and again at shuck split, which is one of the most important stages for treating.

This pathogen is spread primarily by rain, and optimal conditions for infection are when temperatures are from 70 to 80°F.

Commercial growers can find options by [clicking here](#).



Peach twig borers are easily treated before shoots elongate.



young infections on expanding apricot leaves

Tools for Pest Management

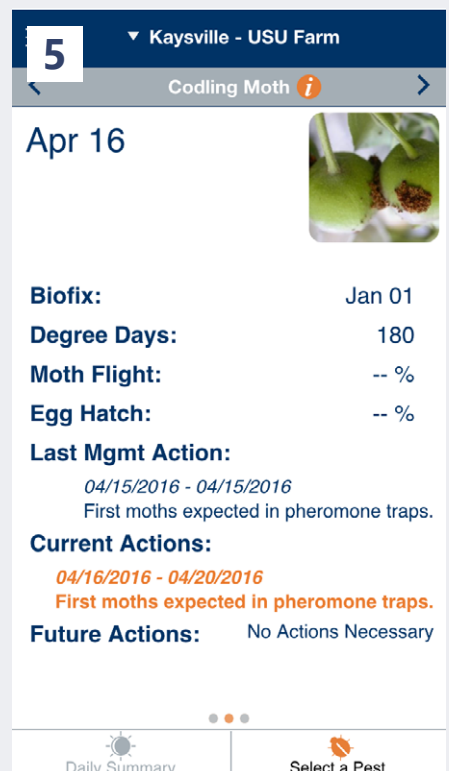
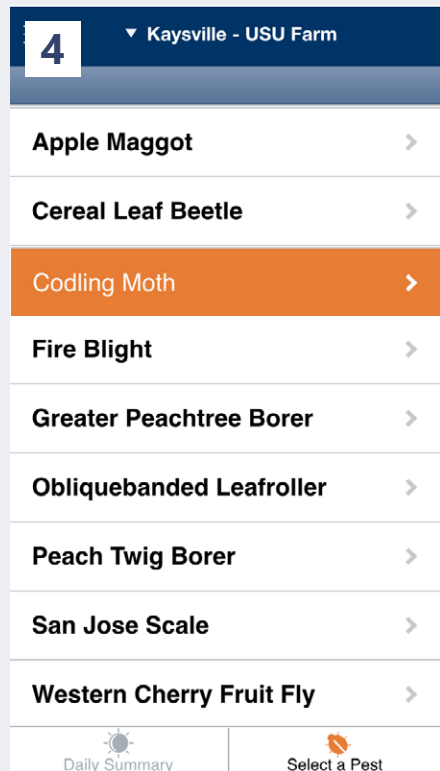
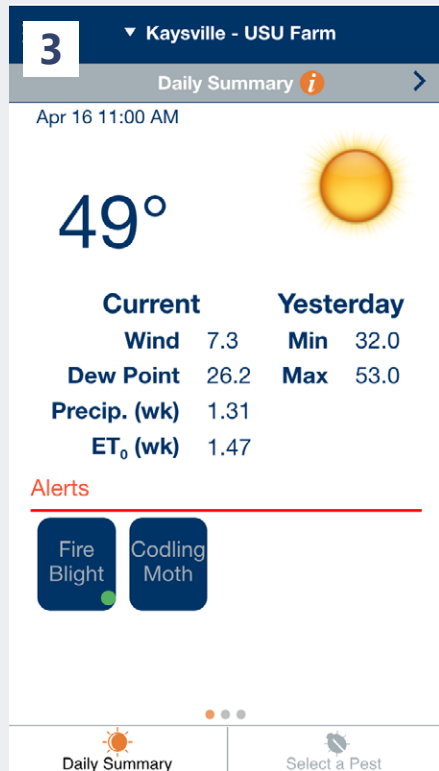
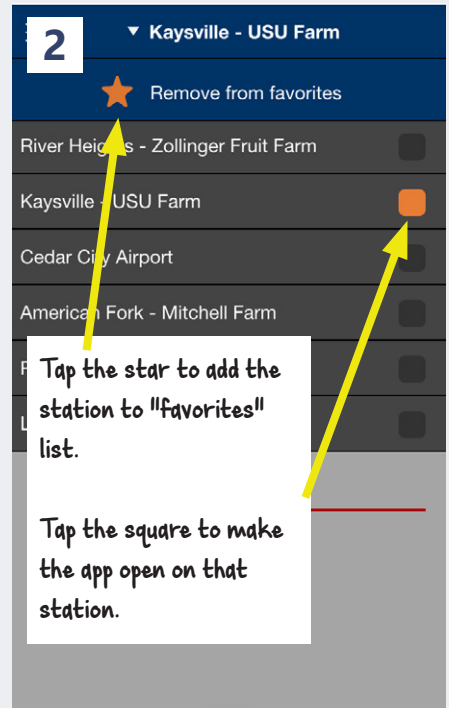
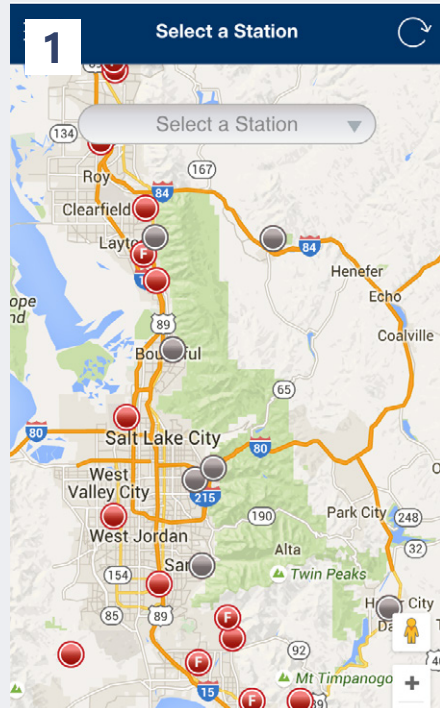
TRAPs App



The TRAPs app is free for iOS and Android devices. Use the search terms, "utah traps" to find it. It is based on the TRAPs website, climate.usu.edu/traps.

The app provides temp, precip, and wind information, plus treatment dates for codling moth, peach twig borer, San Jose scale, and fire blight.

1. On very first start, the app will open on a map. Find the location closest to you. Tap to select.
2. Your chosen location can become a "favorite" by tapping the down arrow next to the name, and then tapping the favorite star. Make it the default by tapping the dark square.
3. The main screen of the location will show weather data.
4. Tap "Select a Pest" at the bottom of the screen. Choose a pest.
5. The app will show "management actions" for the prior week, current week, and the next 3 weeks.



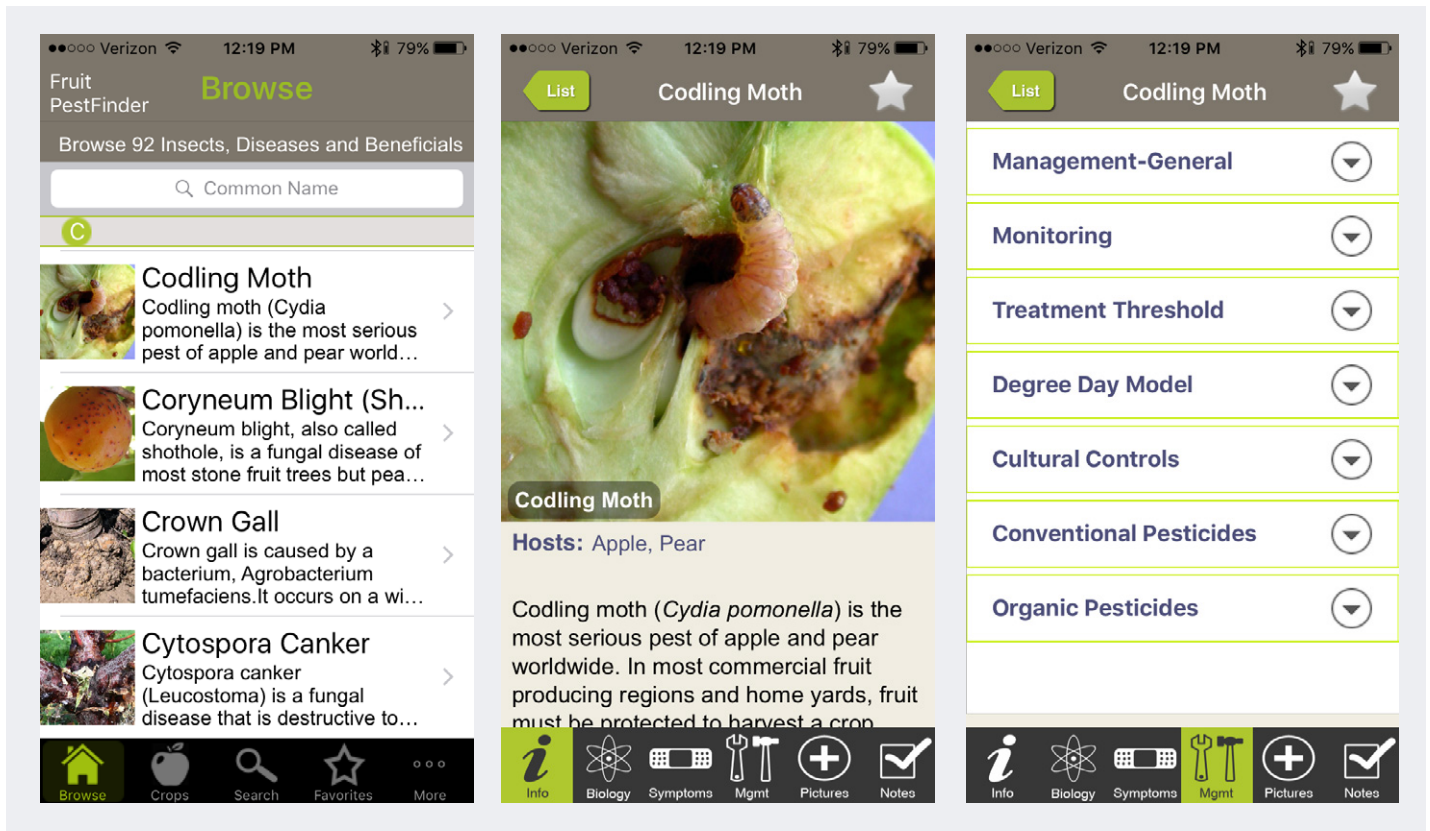
Tools for Pest Management, continued

Fruit PestFinder App



The Fruit PestFinder app (yes, "pestfinder" is all one word) helps identify plant diseases, pest insects, and beneficial insects found on tree fruit crops grown in the West. It includes lots of pictures and detailed management information.

Free for iOS and Android (on Google Play), but the app is large (1 GB), and requires wi-fi for download.



Text or Email Alerts Through the Utah TRAPs Website



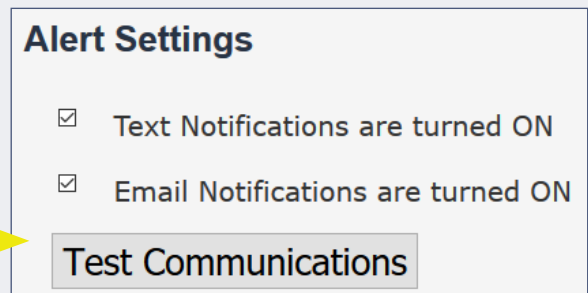
Start your own account today on the Utah TRAPs website so that you can set up customized text and/or email alerts for the important fruit pests, including codling moth, fire blight, and peach twig borer.

The steps below show how to get started with this free service. They only need to be performed once; everything is saved from year to year!

TEXT MESSAGE EXAMPLE

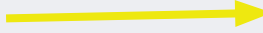
UCC Alert: Kaysville - Codling Moth: Start treating May 10; repeat until end of 1st gen. egg hatch.

1. Go to the Utah TRAPs login page and select "Sign Up":
climate.usurf.usu.edu/Admin/index
2. After your account is confirmed, log in and select the "My Account" tab.
 - a. Enter your contact information
 - b. At the bottom of the page, select your communication preferences and test.



Tools for Pest Management, continued

Text or Email Alerts Through the Utah TRAPs Website, continued

3. Select the "ALERTS" tab at the top of the page.
4. Here is where you will enter the details for the messages you can receive for insects or fire blight. Locate the box at the bottom called "Add Insect Alert." 
 - a. Select the location using the drop-down menu or the pop-up map.
 - b. Select the pest
 - c. Select the pest event. The bold items are recommended events. An example message will be shown.
 - d. Choose the number of days in advance in which to receive the message.
 - e. You may choose to receive a second reminder.

Add Insect Alert

Alert Name (optional)

Station
 [Select Station from map](#)

Insect

Event (Recommended alerts are in bold)

You may choose to receive one or two notices of this alert. If you choose just one, then leave "None" for the second notice field.

Number of Days in Advance to Receive the First Notice

(Optional) Number of Days in Advance to Receive the Second Notice

Precautionary Statement: Utah State University Extension and its employees are not responsible for the use, misuse, or damage caused by application or misapplication of products or information mentioned in this document. All pesticides are labeled with ingredients, instructions, and risks. The pesticide applicator is legally responsible for proper use. USU makes no endorsement of the products listed herein.

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