



OVERVIEW MESSAGE

Suterra® is committed to enhancing grower profitability, without compromising environmental stewardship, through the integration of its novel pheromone delivery system into commercial orchards. While pheromones offer numerous advantages when used as the foundation of an Integrated Pest Management program, their adoption is most successful when the capabilities and limitations of their delivery system are well understood.

PRODUCT DESCRIPTION

The Puffer Aerosol Cabinet (PAC) is a mechanical system designed to deliver pheromone from Suterra's CheckMate branded Puffer OFM-O, Puffer CM-O, and Puffer NOW puffer cans for the duration of the growing season (up to 200 days). Used as directed, pheromone is released en masse throughout an orchard, which in turn decreases the target adult male insect's ability to find an individual calling female. This phenomenon, known as mating disruption (MD) or mating confusion, reduces the probability of an insect finding a suitable mate in a timely manner. These products only affect adult male moths and will have no effect on female moths, eggs or larvae. By preventing mating and subsequent egg laying, moth populations can be reduced.

ORCHARD CONSIDERATIONS AND PREPARATION

Before starting, determine the orchard's baseline pest population density through examination of historical records, such as scouting reports for crop injury/damage, and trap counts. Understand the extent other sources, such as neighboring crops or activities, are contributing to the pest population. Refer to the label and technical bulletin of the CheckMate branded Puffer product selected for information about the target pest's biology, and to assess if the recommended monitoring and complementary pest management practices are suitable for your orchard.

For a new deployment, map the orchard for PAC placement (*see label and technical bulletin for CheckMate branded Puffer product selected*). Unless advised otherwise, start with an evenly spaced grid pattern that reflects the desired PAC per acre density. Consult with your crop pest management advisor, University Extension Specialist/Agent, or Suterra Technical Sales Representative to determine how to modify placement on the map to account for "pockets" having high levels of infestation, contributing neighboring sources, prevailing winds, and/or irregular shaped orchards. Use the map as a guide to mark each tree end row and individual tree where PACs are to be hung. Select and place markers that will last the entire season and can be seen when the tree canopy has leafed out, such as fluorescent colored or striped surveyor's ribbon flagging tape, tied to the outermost canopy. Replace worn markers as needed to avoid having to re-map the orchard to re-establish the PAC placement points. Save the map for future reference.

PAC PREPARATION

After the orchard trees have been marked, prepare the PACs for deployment. Grower experience has demonstrated it's far more efficient to prepare the PACs for use in advance of deployment, in a central staging area, rather than prepare them for use while deploying. Starting with new batteries provided or approved for use by Suterra, and unused CheckMate branded puffer cans, follow the *Puffer Aerosol Cabinet Loading Instructions* to prepare the PACs for orchard deployment. Leave the Power Slide Switch set to the "OFF" position until the PACs are transported into the orchard for use.



PAC DEPLOYMENT

Grower experience has demonstrated it's far more efficient to install the hanger while in the orchard, immediately prior to placing each PAC in its tree (consult with your pest management advisor, University Extension Specialist/Agent, or Sutterra Technical Sales Representative for guideline before hanging in Walnuts). The PACs will transport more efficiently to the orchard and the hangers will not tangle. When ready for service, transport prepared PACs (batteries installed, Puffer branded aerosol canister installed, etc., as per *Puffer Aerosol Cabinet Loading Instructions*) to each tree marked for hanging. Point the PAC in a safe direction, open the Cabinet Door, and activate the PAC as per *Puffer Aerosol Cabinet Activation Instructions*. Verify that the Power Slide Switch is set to the "ON" position and the Clock time is correct. **Caution, the unit will test spray when the Power Slide Switch is moved from the "OFF" to "ON" position.** Secure the Cabinet Door closed by snapping it past the closure retention detent. Make sure that the spray nozzle (Actuator) is properly aligned to spray out of the Door Orifice.

While at tree-side, starting from door side, thread the hanger through the Grommet at the top of the PAC. Next, place the hanger stem into the open end of a sturdy pipe pole. Guide the activated PAC into the tree canopy and suspend it by placing the large hook of the hanger over a limb capable of bearing the weight for the entire season. Select a limb that will remain in the upper one-third of the tree canopy for the duration of the season. Orient the PAC so the Door Orifice is directed away from foliage, fruits or nuts, if possible.

PAC USE

Leave all loaded PACs activated, hanging in full uninterrupted service, through the entire growing season. Refer to the label and technical bulletin of the CheckMate branded Puffer product selected for suggested monitoring and complementary pest management practices. After approximately two weeks of service, schedule a PAC functionality check with your Sutterra Technical Sales Representative to confirm proper activation and operation. At the time of the functionality check, the Sutterra Technical Sales Representative will also determine if it is feasible for the PACs to remain hanging in the orchard during harvest. When possible, leave PACs hanging in the orchard until the Puffer cans have run empty.

PAC RETRIEVAL AND STORAGE

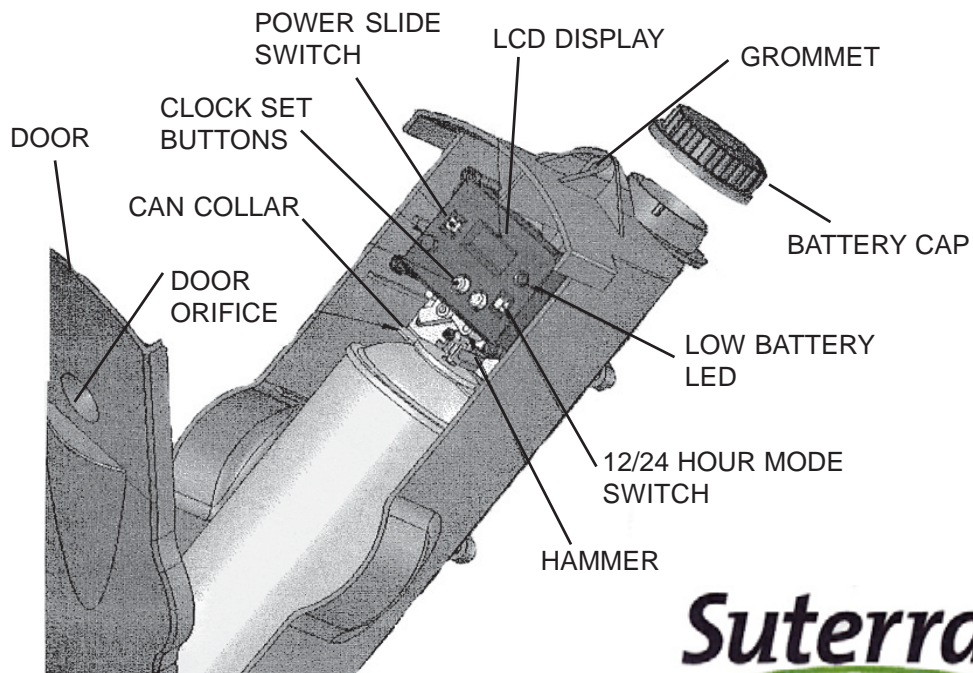
Remove the PACs from the orchard at the end of each season of use. Slide the hanger stem into the open end of a sturdy pipe pole and lift the PAC up and out of the tree. During removal, replace worn tree markers as needed to avoid having to re-map the orchard to re-establish the PAC placement points.

Grower experience has demonstrated it's far more efficient to remove the hanger, while tree-side in the orchard. The PACs will transport more efficiently to the staging/storage area and the hangers will not tangle. Once the PACs are in the staging/storage area, remove the batteries and the Puffer can from each unit. Follow your local regulations for the proper disposal of batteries and empty Puffer cans; recycle these materials where possible.

While the cabinet is open, clean the Door Orifice, being careful not to scratch the surface. Inspect each unit. Set aside any PAC that exhibits unusual wear and/or damage that may compromise its future functionality, and notify your Sutterra Technical Sales Representative. Store the PACs in a dry place where the temperature will be between 30° and 120°F.

PUFFER AEROSOL CABINET (PAC) LOADING INSTRUCTIONS

1. **Remove the Battery Cap.** Remove the Cap by turning it counter-clockwise. The cap turns about 1/8 of a turn and pulls straight off. Remove batteries, if any.
2. **Open the Cabinet Door.** Firmly grasp the top of the Housing with one hand, and pull the top of the Door away from the Housing using the other hand.
3. **Select the mode of operation.** Set the 12/24HR Mode Switch to "12HR", for spray every 15 minutes between the hours of 5PM and 5AM. Set the 12/24 Hour Mode Switch to "24HR", for spray every 30 minutes 24 hours a day.
4. **Make sure the Power Slide Switch is in the "OFF" position.** Slide the covered switch downward.
5. **Install batteries.** Lay the PAC on its side and slide (4) D-cell alkaline batteries, as shown on embossed label, into the battery compartment being careful not to damage the contact terminal on its bottom. Install only all new batteries provided or approved for use by Suterra.
6. **Install and tighten Battery Cap.** Line up the tabs and twist the cap clock-wise back on the Housing.
7. **Turn Power Slide Switch to "ON" position.** Unit will cycle the motor (test spray). Anytime the switch is turned off, then on, it will test spray immediately. **Caution: Keep clear of the spray nozzle (Actuator) whenever a can is present.**
8. **Press Reset Button.** Unit will cycle the motor (test spray).
9. **Set time.** Press the "Clock" key to select hours or minutes and use "Set" key to advance the count of either to the correct local time for each individual PAC.
10. **Load unused CheckMate® puffer can into Cabinet.** Turn the power slide switch "OFF". Be sure that the Hammer is in the up position; push the hammer into the up position if necessary. Install an unused, CheckMate puffer can by sliding it into the Can Collar (metal bracket) while aligning the Actuator.
11. **Proceed to Puffer Aerosol Cabinet Activation Instructions** if the puffers are to be immediately deployed, otherwise close the cabinet door by snapping it past the closure retention detent, and resume instructions at **Puffer Aerosol Cabinet Activation Instructions** when ready for deployment.



PUFFER AEROSOL CABINET ACTIVATION INSTRUCTIONS

1. **Prepare the Cabinet for use.** Follow the instruction in the **Puffer Aerosol Cabinet Loading Instructions** section.
2. **POINT THE UNIT AWAY FROM YOU.** Open the Cabinet Door. Turn the Power Slide Switch to the “ON” position. The unit will test spray.
3. **Close the door.** Secure the Cabinet Door closed by snapping it past the closure retention detent. Make sure that the spray nozzle (Actuator) is properly aligned to spray out of the Door Orifice.

Use caution as the unit will now spray automatically once every 15 minutes between the hours of 5pm and 5am or once every 30 minutes 24 hours a day, depending on the 12/24 Hour Mode Switch position.

When the unit is ready to place into service, starting from door side, thread the small hook on the hanger through the Grommet at the top of the cabinet. Use the large hook on the hanger to hang the cabinet from a tree branch that will remain in the top one-third of the canopy for the duration of the season.

CAUTION: When replacing batteries, be sure that slide switch is in the “OFF” position.
DO NOT STORE UNITS WITH BATTERIES INSIDE. THIS WILL CAUSE DAMAGE AND VOID THE WARRANTY.

