

SmartFresh™ ProTabs

YELLOW 1L & 4L



SmartFresh™

an AgroFresh solution



# Use Instructions

NORTH AMERICA | SMARTFRESH PROTABS

# SmartFresh™ ProTabs, **YELLOW** 1L & 4L

ProTabs are based on AgroFresh's award-winning 1-methylcyclopropene (1-MCP) technology successfully used in 46 countries and acclaimed by the fruit industry since its introduction. By interacting with the ethylene receptors of harvested fruits and vegetables, 1-MCP slows ripening, controls the development of ethylene-related disorders and protects from the various adverse effects of ethylene.



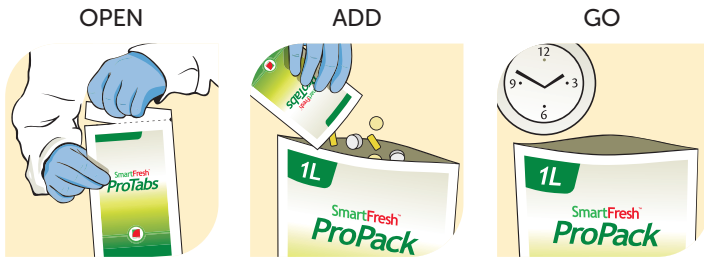
## Product Information

SmartFresh™ technology is a unique post-harvest tool for counteracting many of the undesirable effects of both internal (produced within the plant) and external sources of ethylene on fruits and vegetables. By counteracting ethylene, SmartFresh ProTabs provide many benefits during storage and transport, including:

- Maintaining firmness and titratable acidity
- Controlling superficial scald
- Reducing soft scald on apples
- Reducing internal ethylene production
- Protection from external sources of ethylene
- Slowing respiration
- Delaying ripening and senescence
- Reducing incidence of peel greasiness in apples
- Reducing incidence of core flush and mealiness in apples

Depending upon the crop, SmartFresh technology is used immediately after harvest, prior to storage, prior to shipment or just prior to sale. SmartFresh ProTabs are effective under cool (below 55°F, 13°C) and warm (above 55°F, 13°C) temperature conditions. To realize maximum benefit in preserving freshness while controlling senescence and superficial scald, treat fruits and vegetables as soon as possible after harvest. For chilling-sensitive crops, treatment should take place at warm temperatures. Harvested fruits and vegetables must be exposed to the volatile active ingredient of SmartFresh technology in enclosed spaces, such as storage rooms, coolers, shipping containers, enclosed truck trailers or similar enclosures. This product is not intended for use outdoors or in other non-enclosed spaces. These enclosed treatment spaces must be airtight; any leakage will dilute the active ingredient and reduce the technology's effectiveness.

## Easy Preparation. Simple Instructions.



1. Make sure the room/trailer/container can be properly sealed and has an internal fan. Prepare to close and seal doors promptly following the start of application.
2. Check labels to confirm that the number of SmartFresh ProTabs in the tablet package and the size of the SmartFresh ProPack (release vessel) correspond to the size of the room. Match the color code of the tablet package with that of the ProPack.
3. Wear a long-sleeved shirt, long pants, shoes, socks, chemical-resistant gloves and safety glasses or goggles.
4. Set the ProPack on a stable surface. Tear off the closure strips at the top of the pouch, and at the top of the ProTabs package. Drop ALL the tablets from the package directly into the solution. Leave the area immediately. Be sure to complete additions of all tablets within 5 minutes.

### APPLICATION TIP:

It is important the ProPack remain upright. It may be helpful to set the ProPack pouch within a small container such as a bucket or pail to keep it from being inadvertently knocked or kicked over in the room.

5. Close and seal doors. Start the operation of the internal fan. Do not allow anyone to re-enter the storage room until the application is complete.
6. After the application period, open doors and vent the room for at least 15 minutes before allowing re-entry.
7. Remove the used ProPack. Dispose of it and its contents either on site or at an approved waste-disposal facility.
8. Store treated fruit according to recommended industry practices.

# Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the state or tribal agency responsible for pesticide regulation. All applicable directions, restrictions, precautions and conditions of sale and warranty must be followed. The product label must be in the user's possession during application. Read and follow label directions for use.



## Fruit and Vegetable Storage Conditions

SmartFresh technology is compatible with and complementary to both Controlled Atmosphere and Regular Air fruit and vegetable storage.

## Timing of Application

SmartFresh ProTabs are used in the storage area containing fruits or vegetables immediately after harvest, upon entering storage, during distribution or in transit. For best results on apples and pears, do not use on fruit previously treated with ethephon. After application, fruit or vegetables not intended for immediate sale must be stored according to good standard commercial practices. Fruits and vegetables may benefit from repeat application, such as when the crop has been exposed to ethylene. It must be emphasized that holding fruits and vegetables at recommended storage temperatures throughout the cold chain and strict adherence to phytosanitary practices remain essential in maintaining safe and high-quality fruits and vegetables.

For apples, apply SmartFresh technology soon after harvest. Best results are obtained when fruits are at optimum maturity for long-term storage.

Mature fruit will respond favorably to SmartFresh technology, but should be marketed during shorter storage periods. For optimum quality, store apples that are to be held longer than six months under Controlled Atmosphere.

## Application Method and Rate

Prior to application, ensure that the treatment area can be properly and promptly sealed following the start of application. SmartFresh ProTabs are packaged with the required SmartFresh ProActivators in a single tablet package. All of the included activators must be used in a single application. The proprietary solution is ready to use in either of two sizes of the SmartFresh ProPack release vessels. The medium size contains one (1) liter of solution; the large size contains four (4) liters of solution. When the entire contents of a tablet package are added to the solution in the appropriate SmartFresh ProPack, the volatile active ingredient 1-methylcyclopropene (1-MCP) is released. Make sure that you have a sufficient supply of both SmartFresh ProTabs and SmartFresh ProPacks available to treat the designated space.

### STEP 1: Select the appropriate number of SmartFresh ProTabs and size of ProPacks

- Accurately determine the volume of the EMPTY treatment space in cubic feet. Multiply inside dimensions: volume = length x width x height. For example, if the treatment space is 20 feet high x 40 feet long x 30 feet wide, the treatment volume would be  $20 \times 40 \times 30 = 24,000$  cubic feet.
- Using the table below, choose the correct number of SmartFresh ProTabs according to the size of the space and the crop to be treated.

#### EXAMPLE:

To treat a 24,000 ft<sup>3</sup> space for apples, divide 24,000 by 1,350 and use seventeen (17) YELLOW ProTabs. It is preferred to use the higher dosage in the crop range for longer-lasting results, and in some cases broader spectrum control. Consult with your AgroFresh representative for recommendations specific to your conditions.

CROP	RATE: One (1) YELLOW ProTab per
Apple, Asian Pear, Avocado, Broccoli	1,350 ft <sup>3</sup> - 1,800 ft <sup>3</sup>
Pear	2,100 ft <sup>3</sup> - 4,400 ft <sup>3</sup>
Apricot, Kiwifruit, Melon, Nectarine, Plum, Plumcot, Peach, Persimmon, Tomato	2,650 ft <sup>3</sup> - 3,000 ft <sup>3</sup>
Banana	1,350 ft <sup>3</sup> - 5,300 ft <sup>3</sup>

c) Select the appropriate size and number of SmartFresh ProPacks. For best results, in medium-size spaces, use the YELLOW ProTabs and the medium (1 liter) ProPack. Use no more than 20 YELLOW ProTabs per medium ProPack. For larger spaces that require more than 60 YELLOW SmartFresh ProTabs, use the large (4 liter) SmartFresh ProPack. Use no more than 80 YELLOW ProTabs per large ProPack. Do not split the contents of a tablet package. Use the entire contents of one tablet package in one correspondingly sized SmartFresh ProPack.

MEDIUM (1 LITER)		LARGE (4 LITER)	
Number of YELLOW ProTabs	Number of ProPacks	Number of YELLOW ProTabs	Number of ProPacks
1-20	1	61-80	1



**STEP 2: Evaluate the quality of the treatment room/trailer/container**

Enclosures to be used with SmartFresh technology must be airtight and have an internal fan for mixing the atmosphere.

**Check that:**

- All drain holes are plugged
- Any openings in the walls, ceiling or floor are sealed
- All vents to outside air are closed, except pressure relief systems should remain in operation during treatment
- When viewed from a dark interior, no outside light is visible
- Door seals are in EXCELLENT condition
  - No missing rubber gaskets
  - No large cracks
  - No plastic slat doors
  - No unsealed side doors
- Scrubbers and/or ozone generators are turned off during treatment

**STEP 3: Fill the treatment space with the fruit or vegetables to be treated****STEP 4: Start the application to release the SmartFresh active ingredient**

- a) In the treatment space, find a stable surface to place the required SmartFresh ProPack(s).
- b) Remove the tear strip from each ProPack, taking care not to spill the solution.

**APPLICATION TIP:**

It is important the ProPack remain upright. It may be helpful to set the ProPack pouch within a small container such as a bucket or pail to keep it from being inadvertently knocked or kicked over in the room.

- c) To achieve the desired dosage, open the selected tablet package and add the entire contents of the tablet package to the solution in the corresponding ProPack.
- d) Repeat with additional ProPacks and tablet packages as needed according to the room volume. Be sure to complete all additions within five (5) minutes.
- e) Exit the treatment space immediately, promptly close the doors and ensure they are tightly sealed in order to contain the SmartFresh active ingredient and ensure its maximum efficacy. The release to the space will start several minutes after addition of the SmartFresh ProTabs to the solution.
- f) Circulate the air in the space by means of the internal air circulation system for AT LEAST one (1) hour.
- g) For best results, do not open the doors for AT LEAST twelve (12) hours for avocado, banana, broccoli, kiwifruit, melon, persimmon and tomato, fifteen (15) hours for Asian pear, or twenty-four (24) hours for apple, nectarine, peach, pear, plum, plumcot and apricot.
- h) For best results in Controlled Atmosphere storage containers or storage rooms, do not actively change the room atmosphere to Controlled Atmosphere conditions for AT LEAST twenty-four (24) hours.

**STEP 5: Allow re-entry into the storage space**

Before allowing workers to re-enter the storage space, vent the treated space by opening the doors for a minimum of fifteen (15) minutes with continued full internal ventilation. After venting, the used solution may be removed and disposed of on-site or at an approved waste-disposal facility. Store treated crops not intended for immediate sale according to standard commercial practices, in either Regular Air or Controlled Atmosphere conditions.





## Restrictions

Do not split tablets. Use whole tablets only. Do not smoke in the treatment enclosure during the SmartFresh technology application.

## Storage and Disposal

Do not contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store in original packaging in a cool, dry place.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste-disposal facility.

**Container Disposal:** Non-refillable ProPack container. Do not reuse or refill this container. Offer for recycling if available.

## Conditions of Sale and Limitation of Warranty and Liability

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

AgroFresh Customer Service:  
1-866-206-1001

AgroFresh Online Order Services:  
1-877-527-3135  
[agrofresh.octochemstore.com](http://agrofresh.octochemstore.com)

PLEASE NOTE: Individual results may vary. AgroFresh cannot guarantee comparable results. Read entire label and directions before using product.

NOTICE: AgroFresh makes no representations or warranties as to the completeness or accuracy of any information contained herein. Recipients must make their own determination as to its suitability for their purposes prior to use, and nothing contained herein is to be construed as a recommendation to use any product, process, equipment or formulation in conflict with any patent. AGROFRESH MAKES NO WARRANTIES OF ANY NATURE, EXPRESS OR IMPLIED, WHETHER REGARDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OR ANY OTHER MATTER, ALL OF WHICH ARE EXPRESSLY EXCLUDED.

© AgroFresh Solutions, Inc. All rights reserved. SmartFresh is a trademark of AgroFresh Inc.