

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

March 21, 2024

Ms. Shiloh Maloney Regulatory Specialist Hazel Technologies, Inc. 320 N. Sangamon St., Suite 400 Chicago, Ill. 60607

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 – Revising optional label claims
Product Name: Hazel™
EPA Registration Number: 92120-1
EPA Receipt Date: 02/15/2024
Action Case Number: 00501258

Dear Ms. Maloney:

The U.S. Environmental Protection Agency (EPA) is in receipt of your application for notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Biopesticides and Pollution Prevention Division (BPPD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10.

The labeling submitted with this application has been stamped "Notification" and will be placed in our records. You must submit one (1) copy of the final printed labeling with the modifications.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains

statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

If you have any questions, please contact Nina Naimy via email at <u>naimy.nina@epa.gov</u>.

Sincerely,

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James Parker, Team Leader Biochemical Pesticides Branch Biopesticides and Pollution Prevention Division (7511M) Office of Pesticide Programs

Enclosure

NOTIFICATION

92120-1

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

03/21/2024

1. MASTER LABEL

- 2. Sublabel A: Agriculture [Fruits and vegetables]
- 3. Sublabel B: Ornamental and Cut Flowers
- 4. Individual Unit Label

Sublabel A: Agriculture [Fruits and vegetables]

Hazel^[™]

[A [novel] post-harvest tool for counteracting the undesirable effects of [both internal and external sources of] ethylene by counteracting premature [early] color break on [harvested] [post-harvest] fruits and vegetables.]

[For management of post-harvest freshness]

Active Ingredients:	
1-Methylcyclopropene	
Other Ingredients	
TOTAL	

KEEP OUT OF REACH OF CHILDREN

EPA Est. No.:

EPA Reg. No.: 92120-1

Manufactured [by][for]: Hazel Technologies, Inc. 320 N. Sangamon St. Suite 400 Chicago, IL 60607

Net Contents:

[Sachets] [per package][Unit Package Size][Sachet Count]:

[One][1]	[Two][2]	[Five][5]
[Ten][10]	[Twenty][20]	[Fifty][50]
[One hundred][100]	[Two hundred and fifty][250]	[Five hundred][500]
[One thousand][1000]	[Two thousand five hundred][2500]	[Five thousand][5000]

[Hazel^[TM] Sachet Size][Sachet Size][One sachet contains]:

[0.0035 oz. (100mg)	0.0044 oz. (125mg)	0.0088 oz. (250mg)	0.0175 oz. (500mg)
0.035 oz. (1g)	0.088 oz. (2.5g)	0.175 oz. (5g)	0.525 oz. (15g)
0.63 oz. (18g)	0.882 oz. (25g)	1.724 oz. (50g)	3.528 oz. (100g)
4.55 oz. (130g)	7.056 oz. (200g)	8.75 oz. (250g)]	

Batch No. / Lot Code:

[A] [Contains] [a] [Patented Technology]

Not for sale or use after [DATE]

PERSONAL PROTECTIVE EQUIPMENT (PPE): Applicators of this product must wear:

- Long-sleeved shirt and long pants.
- Shoes plus socks.

U.S. Patent No.: 11,278,023

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

PRODUCT INFORMATION

Hazel^[TM] is a [novel] post-harvest tool for counteracting [many] undesirable effects of ethylene by counteracting premature [early] color break on [harvested][post-harvest] fruit and vegetables. By counteracting ethylene, Hazel^[TM] provides benefits to many fruit and vegetables during storage and transport including:

- [Slowing aging]
- [Delaying ripening and senescence]
- [Extending shelf-life]
- [Maintaining firmness]
- [Longer post-harvest storage capability]
- [Leaves no detectible residues]
- [Maintaining titratable acidity]
- [Reducing internal ethylene production]
- [Protection from external sources of ethylene [(such as vehicle exhaust)]]
- [Reducing fruit respiration]

[Hazel^[TM] [sachets] contain powder that [is specially formulated to delay] [delays the ripening of fruits and vegetables]. [[Hazel^[TM] works by [slowly] [control] releasing [1-methylcyclopropene] [1-MCP]]. Once the [sachets are][sachet is] removed from the [original] [foil] [outer] [packaging] [pouch], Hazel^[TM] begins [working] [releasing 1-MCP] immediately. Apply to fruits and vegetables post-harvest—prior to storage, prior to shipment, and/or prior to sale.

Hazel^[TM] is effective under both cool (below 55°F, 13°C) and warm (above 55°F, 13°C) temperature conditions. Fruits and vegetables must be exposed to Hazel^[TM] for at least eight (8) hours, the minimum amount of exposure as the industry standard, to achieve the full benefits of the product. Apply to [produce] [fruit] immediately after the [original] [foil] [outer] [packaging] [pouch] seal is broken.

GENERAL INSTRUCTIONS

Store Hazel^[TM] in its [original [foil] [outer] sealed [packaging] [pouch].If storing this product for less than 1 month, store at 32 °F (0 °C) or if storing this product up to 1 year, it must be stored at -4 °F (-20 °C) or colder until use. When ready to use, break the [foil] seal [of the [original] outer [packaging] [pouch]] and remove the Hazel^[TM] sachets as instructed below.

Keep the powder inside the sachet at all times.

When ready to use Hazel^[TM], open the [original] [foil] [outer] [packaging] [pouch] that contains the Hazel^[TM] sachets. After the Hazel^[TM] sachets are removed from the [original] [foil] [outer] [packaging] [pouch], Hazel^[TM] begins working immediately. **Do not remove the powder from the sachet**. Apply Hazel^[TM] immediately after the original [foil] [outer] [packaging] [pouch] seal is broken. **[Use all sachets in the original [foil] [outer] sealed [packaging] [pouch]** in accordance with the usage application chart below.] **[Do not store Hazel^[TM] sachets for later use after they have** been removed from their original [foil] [outer] [packaging] [pouch] as Hazel^[TM] is designed to work immediately after removal from the [foil] [outer] [packaging] [pouch].] Application Instructions [for Package, Box, Pallet **Treatment**, Storage Rooms, or Shipping Containers]

Hazel^[TM] is ready to apply after removal from the [original] [foil] [outer] [packaging] [pouch]. **Do not remove Hazel**^[TM] **powder from the sachet**. [To apply Hazel^[TM] as a [produce] [fruit] package or box treatment place Hazel^[TM] sachets in the container with the [produce] [fruit]. If possible, close the [produce] [fruit] package.] [To apply Hazel^[TM] as a pallet treatment, place the Hazel^[TM] sachet between pallet boxes containing [produce] [fruit]. [To apply Hazel^[TM] to a storage space (chiller room, shipping container, or commercial truck containing [produce] [fruit]), follow the application chart below to determine the number of Hazel^[TM] sachets needed for treatment. Close doors to storage spaces while Hazel^[TM] is in the storage space and place Hazel^[TM] throughout the room for maximum application coverage and benefit.] Follow the application chart below to determine the original [foil] [outer] sealed [packaging] [pouch].]

[Do not store Hazel^[TM] sachets for later use after they have been removed from their original [foil] [outer] [packaging] [pouch] as Hazel^[TM] is designed to work immediately after removal from the [foil] [outer] [packaging] [pouch].]

Container	[Produce][Fruit] Weight	Hazel ^[™] Minimum Recommended Rate	Hazel ^[™] Maximum Allowed Rate
Package	3.3 lbs (< 1.5 kg)	0.0035 oz (100 mg)	0.014 oz (400 mg)
Box	22 lbs (<10 kg)	0.0088 oz (250 mg)	0.0352 oz (1g)
Box	44 lbs (< 20 kg)	0.0175 oz (500 mg)	0.07 oz (2g)
Large Box	110 lbs (< 50 kg)	0.035 oz (1 g)	0.14 oz (4g)
Large Box	330 lbs (< 150 kg)	0.088 oz (2.5 g)	0.352 oz (10g)
Large Box	660 lbs (< 300 kg)	0.175 oz (5 g)	0.7 oz (20g)
Pallet	1,980 lbs (< 900 kg)	0.63 oz (18 g)	2.52 oz (72g)
Truck	26,400 lbs (< 12,000 kg)	4.55 oz (130 g)	18.2 oz (520g)
Shipping Container	48,400 lbs (< 22,000 kg)	8.75 oz (250 g)	35 oz (1 kg)

Example: For a large box weighing 660 lbs, place one (1) 0.175 oz (5g) Hazel^[TM] sachet in the container to obtain the minimum recommended rate of 0.175 oz (5 g). A maximum number of four (4) 0.175 oz (5g) Hazel^[TM] sachets may be added to obtain the maximum recommended rate of 0.7 oz (20g). Combinations of various sachet sizes can be used to obtain the recommended minimum and maximum application rates for each container as indicated in the table above.

*Note: Do not exceed the maximum treatment for any one application. [Immature or mature green [produce] [fruit], or [produce] [fruit] otherwise at an immature stage, may exhibit heightened sensitivity to this product resulting in extended ripening delay. The user should test this product on a case of the fruit, vegetable, or herb to be treated at the ripeness level intended prior to large-scale application to directly observe the ripening timeline and ensure that the timing of Hazel^[TM] application matches the user's [supply chain] needs.]

After application, fruit and vegetables not for immediate distribution should be stored, according to good standard commercial practices, in either refrigerated air or controlled atmosphere. Do not use this product on fruit or vegetables previously treated with Ethephon. [Best results from Hazel^[TM] are obtained with fruit and vegetables at the optimum maturity level for long-term storage.] Storage in controlled atmosphere is required for [produce] [fruit] that is to be held longer than 6 months.

Maintaining the cold chain (keeping the fruit and vegetables cool at all times) and strict adherence to sanitary practices remain essential in maintaining safe and high-quality fruit and vegetables.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal. **STORAGE:**

Individual packet(s): Hazel must be kept cold and in its original sealed packaging prior to application. Store in refrigerator or freezer in original [foil] [outer] sealed [packaging] [pouch]. If storing this product for less than 1 month, store at 32 °F (0 °C) or if storing this product up to1 year , it must be stored at -4 °F (-20 °C) or colder to remain effective or to remain fully effective. [Use all sachets in the original [foil] [outer] sealed [packaging] [pouch] in accordance with the usage application chart above.] [Do not store Hazel^[TM] sachets for later use after they have been removed from their original [foil] [outer] [packaging] [pouch] as Hazel^[TM] is designed to work immediately after removal from the original [foil] [outer] [packaging] [pouch].]

Container of individual packets(s): Hazel must be kept cold and in its original sealed packaging prior to application. [If storing Hazel for < 1 month, Hazel may be stored at 32 °F (0 °C).] If storing up to 1 year, Hazel must be stored at -4 °F (-20 °C) or colder.

DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Discard Hazel^[TM] sachets as waste. Do not remove Hazel^[TM] powder from the sachet.

CONTAINER/PACKAGING HANDLING: Nonrefillable packaging. Do not reuse or refill the original [foil] [outer] [packaging] [pouch].

WARRANTY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product.

HAZEL TECHNOLOGIES, INC. warrants that this product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when stored and used in accordance with label directions. HAZEL TECHNOLOGIES, INC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY, OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, all of which are beyond the control of HAZEL TECHNOLOGIES, INC. To the extent permitted by applicable law, Buyer and User agree to hold HAZEL TECHNOLOGIES, INC harmless from any claims relating to such factors. Buyer and User agree that HAZEL TECHNOLOGIES, INC. is not responsible for any crops or [produce] [fruit] that fail to ripen due to misuse of this product. Handling, storage, and use of the product by Buyer and User are beyond the control of HAZEL TECHNOLOGIES, INC. and Seller. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of HAZEL TECHNOLOGIES, INC. and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, in no event shall HAZEL TECHNOLOGIES, INC be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF HAZEL TECHNOLOGIES, INC., FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF HAZEL TECHNOLOGIES, INC. THE REPLACEMENT OF THE PRODUCT.

Optional Label Claims

- Convenient formulation and delivery system.
- Protects [produce] [fruit] during storage and shipping.
- Protects [produce] [fruit] shelf life
- A post-harvest technology for improving the shelf-life of certain fruits and vegetables.
- A post-harvest technology for inhibiting the negative effects of ethylene in certain fruits and vegetables.
- No water activation necessary.
- Treats a wide range of [produce] [fruit] [fruits and vegetables].
- Keeps fruits and vegetables fresh longer.
- Recyclable and biodegradable.
- Delays ripening.
- Delays senescence.
- Delays senescence in certain [produce] [fruit].
- Slows [produce] [fruit] respiration.
- Helps regulate post-harvest changes in certain [produce] [fruit].
- Inhibits ethylene action.
- Extends [produce] [fruit] shelf-life.
- 1-MCP reduces respiration rate and tightly bind to the ethylene receptor of treated [produce] [fruit] thereby blocking the effects of ethylene.
- Extends the shelf life of ornamental plants.
- Helps protect agricultural products and [produce] [fruit] from the effects of ethylene.
- Can release 1-MCP for up to two weeks and works under a wide range of storage conditions.
- Odorless and tasteless.
- Provides slow release of 1-MCP
- Does not [adversely][negatively] impact the flavor of fruits and vegetables.
- Can help protect against cold-chain breakage.
- Can be added directly into [produce] [fruit] packaging.
- Minimum landfill footprint.
- Can be used at any scale, from individual boxes to bulk shipments.
- Lasting protection for up to 4 weeks.
- Helps maintain firmness in fruits and vegetables.
- Helps maintain color in fruits and vegetables.
- Helps maintain total soluble solids (TSS) in fruits and vegetables.
- Helps maintain total titratable acidity (TTA) in fruits and vegetables.
- Helps preserve flavor in [produce] [fruit].
- Improves visual quality of post-harvest tomatoes.
- Helps prevents weight loss in cucumbers.
- Delays post-harvest decay in tomatoes.
- Helps prevent yellowing in [rocket][arugula][leaves][mustard greens][brassica greens].
- Slows respiration and helps protect weight of onions.
- Improves shelf life and reduces browning of post-harvest eggplant.
- Helps prevents internal browning of pineapples.
- Helps reduce chill injury in okra.
- Prevents yellowing in mizuna, tatsoi, and protects Chinese mustard, and choy sum, , from the effects of ethylene.
- Helps prevent rachis browning in grapes.
- Helps prevent scale senescence in pitaya.
- Helps prevent leaf senescence in mandarins.
- Inhibits de-greening and color change in citrus fruits, strawberry, pitaya, prickly pear, and olives.
- Helps protect peaches from discoloration and internal morphological changes.
- Helps prevent leaf abscission and root formation in eucalyptus.
- Helps preserve [produce] [fruit] quality.
- Improves the shelf life and quality of [produce] [fruit] during storage.
- Reduces shrink.

- Maintains desired ripeness.
- Extends window of sale.
- Extended quality time.

Apple

- Longer shelf life and higher post-storage quality
- 1-MCP is effective with most commercial apple cultivars.
- 1-MCP benefits for apples:
 - o Effective with fresh-cut and whole fruits
 - Extends shelf-life of apples, even without refrigeration
 - Improves post-storage firmness
 - o <u>Helps retain firmness</u>
 - Reduces incidence of scald
 - Helps retain color
 - o Reduces loss of chlorophyll
 - Improved quality
 - Quality protection
 - o Can help protect against cold-chain breakage.
 - Helps reduce incidence of decay

Apricot

- Longer shelf life and higher post-storage quality
 - 1-MCP is effective with most commercial apricot cultivars.
- 1-MCP benefits for apricots:
 - Effective with both fresh-cut and whole fruit
 - Helps retain post-storage firmness
 - Improved quality
 - Quality protection

Asparagus

- Longer shelf life and higher post-storage quality
- 1-MCP benefits for asparagus:
 - Longer shelf-life and higher post-storage quality
 - Effective with fresh-cut and whole asparagus
 - o Extends shelf-life
 - Improves post-storage texture
 - o Reduces incidence of scald
 - Helps retain color
 - Reduces weight loss
 - Reduces loss of chlorophyll
 - o Reduces lignin content

Avocado

- Longer shelf life and higher post-storage quality
 - 1-MCP is effective with most commercial avocado cultivars
- 1-MCP benefits for avocados:
 - o Effective with fresh-cut and whole fruits
 - Extends shelf-life of avocados, even without refrigeration
 - o Helps maintain post-storage firmness
 - Reduces incidence of scald
 - Helps retain skin color
 - Reduces blackening and discoloration
 - o Reduces browning

- o Improved quality
- Quality protection

Banana

- Longer shelf life and higher post-storage quality
- Improves resistance to rot and mold
- 1-MCP benefits for bananas:
 - Longer shelf-life and higher post-storage quality
 - \circ $\;$ Helps maintain yellow color and prevents overripening
 - \circ $\;$ Reduces browning, spotting, and discoloration fruits
 - Helps maintain firmness
 - Helps retain post-storage firmness
 - o Improves resistance to rot and mold
 - Improved quality
 - Quality protection

Basil

- 1-MCP is effective with all forms of basil, including whole plants and detached leaves.
- 1-MCP benefits for basil:
 - Longer shelf-life and higher post-storage quality
 - Reduce post-storage weight loss
 - Helps maintain green color
 - Improves post-storage aroma
 - o Increases utilization
 - Reduces loss of chlorophyll

Broccoli

- 1-MCP is effective with most *Brassica* cultivars including broccoli and raab.
- 1-MCP benefits for broccoli:
 - Longer shelf-life and higher post-storage quality
 - Protects against cold-chain breakage
 - Effective with fresh-cut and whole broccoli

 - Helps reduce weight loss
 - \circ Reduces off-odor formation (for example, those caused by sulfur compounds)
 - Reduces loss of chlorophyll

Cherries

- 1-MCP is effective with most commercial cherry cultivars.
- 1-MCP benefits for cherries:
 - Longer shelf-life and higher post-storage quality
 - Effective with fresh-cut and whole fruits
 - o Helps maintain firmness
 - o Increase pitting resistance
 - o Reduce incidence of decay
 - $\circ \quad \text{Helps maintain flavor} \\$
 - Helps maintain TSS content
 - o Helps maintain stem greenness
 - $\circ \quad \text{Improved quality} \quad$
 - Quality protection

- Fig
- 1-MCP is effective with most commercial fig cultivars.
- 1-MCP benefits for figs:
 - Longer shelf-life and higher post-storage quality
 - Effective with unpeeled and peeled fruits
 - Reduces browning and discoloration
 - Helps maintain post-storage flavor
 - Reduces incidence of decay
 - Helps retain firmness
 - $\circ \quad \text{Improved quality} \\$
 - o Quality protection

Grape

- Longer shelf life and higher post-storage quality
- 1-MCP is effective with most commercial grape cultivars.
 - 1-MCP benefits for grapes:
 - Greener stems on arrival
 - Improved quality
 - Quality protection

Kale

- 1-MCP is effective with most commercial kale cultivars.
- 1-MCP benefits for kale:
 - Longer shelf-life and higher post-storage quality
 - Improve post-storage firmness
 - Helps reduce post-storage weight loss
 - Helps retain color
 - Reduces loss of chlorophyll

Kiwifruit

- 1-MCP is effective with most commercial kiwifruit cultivars.
- 1-MCP benefits for kiwifruit:
 - Longer shelf-life and higher post-storage quality
 - Effective with fresh-cut and whole fruits
 - Increase post-storage firmness
 - Reduce weight loss
 - Improved quality
 - Quality protection

Leafy greens

- Longer shelf life and higher post-storage quality
- 1-MCP benefits for leafy greens:
 - o Maintains higher amount of marketable leaves
 - <u>o Helps reduce russet</u>
 - o Helps reduce decay caused by brown stain
 - o Helps reduce decay caused by pink rib
 - o Helps delay chlorophyll degradation
 - o Helps reduce incidence of decay
 - <u>o Helps reduce water loss</u>

Lettuce

- [Helps prevent] [browning in], [accumulation of phenolic compounds in], [and] [slows metabolism of] iceberg lettuce.
- 1-MCP is effective with most commercial lettuce cultivars.
- 1-MCP benefits for lettuce:

- Longer shelf-life and higher post-storage quality
- Effective with fresh-cut and whole lettuce
- o Helps increase post-storage flavor
- Helps reduce post-storage browning
- Helps reduce post-storage weight loss

Lychee

- Longer shelf life and higher post-storage quality
- 1-MCP is effective with most commercial lychee cultivars.
- 1-MCP benefits for lychee:
 - Helps prevent browning
 - Helps improve post-storage firmness
 - Helps improve post-storage flavor

Mangos

- Longer shelf life and higher post-storage quality
- 1-MCP is effective with most commercial mango cultivars.
- 1-MCP benefits for mangoes:
 - Effective with fresh-cut and whole fruits
 - o Helps improve post-storage firmness
 - Helps improve weight loss
 - Helps improve post-storage flavor and aroma
 - Improved quality
 - Quality protection

Melons (Honeydew, Cantaloupe, Yellow Melon, Watermelon, Pumpkin)

- Longer shelf life and higher post-storage quality
- Protects against cold-chain breakage
- 1-MCP works for fresh cut melons as well as melons in all stages of ripeness.
- 1-MCP benefits for melons:
 - Helps improve post-storage firmness
 - Helps reduce weight loss
 - Helps improve post-storage flavor and aroma
 - o Improved quality
 - Quality protection

Mushrooms

- Longer shelf life and higher post-storage quality.
- 1-MCP is effective with most commercial mushrooms, including button, cremini, maitake, shitake, oyster, and straw mushrooms.

Nectarine

- Longer shelf life and higher post-storage quality
- 1-MCP is effective with most commercial nectarine cultivars.
- 1-MCP benefits for nectarines:
 - Effective with both fresh-cut and whole fruit
 - Helps retain post-storage firmness
 - Improved quality
 - o Quality protection

Onions

- 1-MCP is effective with most commercial onion cultivars.
- 1-MCP benefits for onions:

- Helps reduce weight loss
- Helps maintain post-storage firmness
- Helps maintain post-storage flavor and aroma

Papaya

- Longer shelf life and higher post-storage quality
- 1-MCP is effective with most commercial papaya cultivars.
- 1-MCP benefits forpapayas:
 - Effective with both fresh-cut and whole fruit
 - Helps retain post-storage firmness
 - o Helps maintain color
 - Helps reduce post-storage weight loss

Peach

- Longer shelf life and higher post-storage quality
- 1-MCP is effective with most commercial peach cultivars.
- 1-MCP benefits for peaches:
 - Effective with both fresh-cut and whole fruit
 - Helps retain post-storage firmness
 - Helps reduce incidence of rot
 - Helps maintain post-storage flavor
 - Reduces pitting
 - Improved quality
 - Quality protection

Pear

- Longer shelf life and higher post-storage quality
- 1-MCP is effective with most commercial pear cultivars.
- 1-MCP benefits for pears:
 - o Effective with both fresh-cut and whole fruit
 - Helps retain post-storage firmness
 - o Improved quality
 - Quality protection

Peppers

- 1-MCP is effective with most commercial pepper cultivars.
- 1-MCP benefits for pepper:
 - Longer shelf life and higher post-storage quality
 - Helps reduce weight loss
 - o Helps maintain post-storage firmness
 - o Reduce rate of decay
 - Helps maintain post-storage flavor
 - Helps maintains post-storage color
 - Reduces loss of chlorophyll

Persian Limes

- Longer shelf life and higher post-storage quality
- <u>1-MCP benefits for limes:</u>
 - Decreases and delays [visual browning] [yellowing]
 - Maintains green skin color
 - Keeps skin color greener longer
 - o <u>Helps delay fruit yellowing</u>
 - Improves visual quality
 - o Protects against [external sources of ethylene] [cold chain breaks]

Persimmons

- 1-MCP is effective with most commercial persimmon cultivars.
- 1-MCP benefits for persimmons:
 - Longer shelf life and higher post-storage quality
 - o Effective with fresh-cut and whole fruits
 - Helps maintain post-storage firmness
 - Helps retain color
 - Helps maintain post-storage flavor
 - Helps maintains post-storage texture
 - o Maintains higher amount of marketable fruit
 - o Helps delay fruit softening
 - o <u>Helps reduce internal decay</u>

Plums

- Longer shelf life and higher post-storage quality
- Protects against cold-chain breakage
- 1-MCP is effective with most commercial plum cultivars, including plum hybrids.
- 1-MCP benefits for plums:
 - o Helps retain color and firmness
 - o Helps maintain post-storage flavor
 - Improved quality
 - Quality protection

Tomato

- Longer shelf life and higher post-storage quality
- Protects against cold-chain breakage
 - o Helps maintain post-storage firmness
 - Helps reduce weight loss
 - Helps reduce occurrence of disease
 - Helps retain color in heirloom tomato varieties
 - Improved quality
 - o Quality protection

Sapodilla

- Longer shelf life and higher post-storage quality
- 1-MCP benefits for sapodilla:
 - Helps maintain post-storage firmness
 - Helps post-storage color retention
 - Reduces loss of chlorophyll

Hazel^[TM] extends the shelf-life of agave, ambarella, apples, apricots, araza, artichoke, arugula, asparagus, atemoya, avocados, babaco, bacuri, bananas, basil, bell pepper, bitter melon, blackapple, blackberry, blueberry, bok choi, brassicas, bread fruit, broccoli, brussel sprout, cacao pod, calabashtree, canistel, , carrots, cauliflower, cherimoya, cherries, chickpeas, chinese eggplant, chives, choy sum, cilantro, coffee beans, coffee cherries, collard greens, cucumbers, cucurbits, dandelion greens, dill, dragon fruit, drupe fruit, durian, eggplant, endive, figs, fresh herbs, frisee, gai lan, garbanzo beans, golden berry, granadilla, grape, green beans, guanabana, guava, herbs, horned melon, jackfruits, kale, kiwifruit, kumquat, leafy greens, leeks, lettuce, lime, longan, mamoncillo, mandarin orange, mangoes, mangosteens, melons, mint, mizuna, mushroom, mustard green, nectarines, okra, onions, oregano, papayas, parsley, passion fruit, peaches, pears, persimmons, pineapples, plantains, plums, pluot, pome fruit, prickly pear, purslane, rabe, raddichio, rambutan, rape, rapini, raspberry, rocket, rosemary, sage, sapodilla, sapote, sorrel, soursop, spanish lime, spinach, squash, star fruit, stone fruit, strawberry, sweet potato, synsepalum dulcificum [miracle berry], tatsoi, thai eggplant, thyme, tomatoes, turnip greens, watercress, watermelon, and zucchini.

Alternative Brand Names

Hazel Bloom Hazel Fresh Hazel Harvest Hazel 100 Hazel Fruit FruitBrite Hazel Extend Hazel Embark Hazel Shield Hazel Crisp Hazel Protect Hazel Ripe Hazel Kore Omnifresh Hazel Viva Hazel Vitalia Hazel Encore Perennia ΗT HT100

Sublabel B: Ornamental and Cut Flowers

Hazel^[™]

[A [novel] post-harvest tool for counteracting the undesirable effects of [both internal and external sources of] ethylene by counteracting premature [early] color break on [harvested] [post-harvest] [ornamentals] [and] [cut flowers.]]

[For management of post-harvest freshness]

Active Ingredients:	
1-Methylcyclopropene	
Other Ingredients	
TOTAL	

KEEP OUT OF REACH OF CHILDREN

EPA Est. No.:

EPA Reg. No.: 92120-1

Manufactured [by][for]: Hazel Technologies, Inc. 320 N. Sangamon St. Suite 400 Chicago, IL 60607

Net Contents:

[Sachets] [per package][Unit Package Size][Sachet Count]:

[One][1]	[Two][2]	[Five][5]
[Ten][10]	[Twenty][20]	[Fifty][50]
[One hundred][100]	[Two hundred and fifty][250]	[Five hundred][500]
[One thousand][1000]	[Two thousand five hundred][2500]	[Five thousand][5000]

[Hazel^[™] Sachet Size][Sachet Size][One sachet contains]:

[0.0035 oz. (100mg)	0.0044 oz. (125mg)	0.0088 oz. (250mg)	0.0175 oz. (500mg)
0.035 oz. (1g)	0.088 oz. (2.5g)	0.175 oz. (5g)	0.525 oz. (15g)
0.63 oz. (18g)	0.882 oz. (25g)	1.724 oz. (50g)	3.528 oz. (100g)
4.55 oz. (130g)	7.056 oz. (200g)	8.75 oz. (250g)]	

Batch No. / Lot Code:

U.S.Patent No.: 11,278,023

[A] [Contains] [a] [Patented Technology]

Not for sale or use after [DATE]

PERSONAL PROTECTIVE EQUIPMENT (PPE): Applicators of this product must wear:

- Long-sleeved shirt and long pants.
- Shoes plus socks.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

PRODUCT INFORMATION

Hazel^[TM] is a [novel] post-harvest tool for counteracting [many] undesirable effects of ethylene by counteracting premature [early] color break on [harvested][post-harvest] ornamentals and cut flowers. By counteracting ethylene, Hazel^[TM] provides benefits to many fresh cut flowers and potted flowers, bedding, nursery, and foliage plants during storage and transport including:

- [Prevent or reduce premature flower death]
- [Prevent leaf and/or flower senescence and abscission]
- [Prevent leaf yellowing]
- [Reduce internal ethylene production]
- [Protect from external sources of ethylene [(such as vehicle exhaust)]]
- [Reduce plant respiration]
- [Delay ripening and senescence]
- [Prolong natural beauty and number of blooms]
- [Help maintain color]
- [Prevent Wilting]

Hazel^[TM] is specifically designed to be used by all levels of the floral and nursery industries, including growers, shippers, wholesalers, and retailers (such as florists). Hazel^[TM] is very easy to use and can be used to treat the following flowers and plants:

[Achillea, Aconitum, Agapanthus, Alchemilla, Allium, Alstroemeria, Alyssum, Amaryllis, Anemone, Aphelandra, Aquilegia, Asclepias, Aster, Astrantia, Asparagus Fern, Azalea, Baby's Breath, Bedding plants, Begonia, Bells of Ireland, Bouvardia, Brassaia (Schefflera), Brodiaea (Triteleia), Canistel, Calathea, Campanula, Carnation, Celosia, Centaurea, Chamaedorea, Chelone, Chrysanthemums, Coleus, Cordyline, Cymbidium, Crocosmia (Montbretia), Cut Flowers, Daffodils, Daisies, Daucus (Queen Annes Lace), Delphinium, Dendrobium, Dianthus, Dicentra, Dizygotheca, Doronicum, Echium, Eremurus, Eustoma (Lisianthus), Ficus, Foxglove, Freesia, Fuchsia, Geranium, Gladiolus, Godetia, Gypsophila, Hibiscus, Hyacinth, Hydrangea, Ilex (Holly), Impatiens, Ixia, Kalanchoe, Kniphofia, Larkspur, Lavatera, Lilac, Lily, Limonium, Lupine, Lysimachia, Marigold, Miniature Carnation, Monkshood, Orchids, Pelargonium, Peonies, Petunia, Philodendron, Phlox, Physostegia, Poinsettia, Ornamental Flowers, Radermachera Rose, Roses, Rudbeckia, Salvia, Saponaria, Scabiosa, Silene, Snapdragon, J Solidaster, Stock, Streptocarpus, Sunflower, Sweet William, Trachelium, Trollius, Tulips, Verbena, Veronica, Violets, Wax Flower, and Zygocactus.]

[Hazel^[TM] [sachets] contain powder that [is specially formulated to delay] [delays the ripening of [delays the spoilage of fresh cut flowers and ornamental plants]. [[Hazel^[TM] works by [slowly] [control] releasing [1-methylcyclopropene] [1-MCP]]. Once the [sachets are] [sachet is] removed from the [original] [foil] [outer] [packaging] [pouch], Hazel^[TM] begins [working] [releasing 1-MCP] immediately. Apply to ornamentals and cut flowers post-harvest—prior to storage, prior to shipment, and/or prior to sale.

Hazel^[TM] is effective under both cool (below 55°F, 13°C) and warm (above 55°F, 13°C) temperature conditions. Cut flowers and ornamental plants must be exposed to Hazel^[TM] for at least eight (8) hours, the minimum amount of exposure as the industry standard, to achieve the full benefits of the product. Apply to [cut flowers] [and] [or] [ornamentals] immediately after the [original] [foil] [outer] [packaging] [pouch] seal is broken.

GENERAL INSTRUCTIONS

Store Hazel^[TM] in its [original [foil] [outer] sealed [packaging] [pouch].If storing this product for less than 1 month, store at 32 °F (0 °C) or if storing this product up to 1 year, it must be stored at -4 °F (-20 °C) or colder until use. When ready to use, break the [foil] seal [of the [original] outer [packaging] [pouch]] and remove the Hazel^[TM] sachets as instructed below.

Keep the powder inside the sachet at all times.

When ready to use Hazel^[TM], open the [original] [foil] [outer] [packaging] [pouch] that contains the Hazel^[TM] sachets. After the Hazel^[TM] sachets are removed from the [original] [foil] [outer] [packaging] [pouch], Hazel^[TM] begins working immediately. **Do not remove the powder from the sachet**. Apply Hazel^[TM] immediately after the original [foil] [outer] [packaging] [pouch] seal is broken. **[Use all sachets in the original [foil] [outer] sealed [packaging] [pouch] in accordance with the usage application chart below.] [Do not store Hazel^[TM] sachets for later use after they have been removed from their original [foil] [outer] [packaging] [pouch] as Hazel^[TM] is designed to work immediately after removal from the [foil] [outer] [packaging] [pouch].**]

Application Instructions for Package, Box, Pallet Treatment, Storage Rooms, or Shipping Containers

Hazel^[TM] is ready to apply after removal from the [original] [foil] [outer] [packaging] [pouch]. **Do not remove Hazel^[TM] powder from the sachet**. [To apply Hazel^[TM] as a [cut flowers] [and] [or] [ornamentals] package or box treatment place Hazel^[TM] sachets in the container with the [cut flowers] [and] [ornamentals]. If possible, close the package.] [To apply Hazel^[TM] as a pallet treatment, place the Hazel^[TM] sachet between pallet boxes containing [cut flowers] [and] [or] [ornamentals]. For maximum effectiveness, apply Hazel^[TM] to [cut flowers] [and] [or] [ornamentals] pallets immediately prior to shrink-wrapping.] [To apply Hazel^[TM] to a storage space (chiller room, shipping container, or commercial truck), follow the application chart below to determine the number of Hazel^[TM] sachets needed for treatment. Close doors to storage spaces while Hazel^[TM] is in the storage space and place Hazel^[TM] throughout the room for maximum application coverage and benefit.] Follow the application chart below to determine the number of Hazel^[TM] sachets needed for treatment. **[Use all sachets in the original [foil] [outer] sealed [packaging] [pouch].]**

[Do not store Hazel^[TM] sachets for later use after they have been removed from their original [foil] [outer] [packaging] [pouch] as Hazel^[TM] is designed to work immediately after removal from the [foil] [outer] [packaging] [pouch].]

Container	[Cut Flowers] [and] [Ornamental] Weight	Hazel ^[TM] Minimum Recommended Rate	Hazel ^[™] Maximum Allowed Rate
Package	3.3 lbs (< 1.5 kg)	0.0035 oz (100 mg)	0.014 oz (400 mg)
Box	22 lbs (<10 kg)	0.0088 oz (250 mg)	0.0352 oz (1g)
Box	44 lbs (< 20 kg)	0.0175 oz (500 mg)	0.07 oz (2g)
Large Box	110 lbs (< 50 kg)	0.035 oz (1 g)	0.14 oz (4g)
Large Box	330 lbs (< 150 kg)	0.088 oz (2.5 g)	0.352 oz (10g)
Large Box	660 lbs (< 300 kg)	0.175 oz (5 g)	0.7 oz (20g)
Pallet	1,980 lbs (< 900 kg)	0.63 oz (18 g)	2.52 oz (72g)
Truck	26,400 lbs (< 12,000 kg)	4.55 oz (130 g)	18.2 oz (520g)
Shipping Container	48,400 lbs (< 22,000 kg)	8.75 oz (250 g)	35 oz (1 kg)

Minimum and Maximum Hazel^[TM] Application Rates Based on [Cut Flowers] [and] [or] [Ornamentals] Weight*

Example: For a large box weighing 660 lbs, place one (1) 0.175 oz (5g) Hazel^[TM] sachet in the container to obtain the minimum recommended rate of 0.175 oz (5 g). A maximum number of four (4) 0.175 oz (5g) Hazel^[TM] sachets may be added to obtain the maximum recommended rate of 0.7 oz (20g). Combinations of various sachet sizes can be used to obtain the recommended minimum and maximum application rates for each container as indicated in the table above.

*Note: Do not exceed the maximum treatment for any one application. The user should test this product on the[cut flowers] [and] [or] [ornamentals] to be treated prior to large-scale application to directly observe and ensure that the timing of Hazel^[TM] application matches the user's [supply chain] needs.]

After application, [ornamentals] [and] [cut flowers] not for immediate distribution should be stored, according to good standard commercial practices, in either refrigerated air or controlled atmosphere. Do not use this product on [ornamentals] [and] [cut flowers] previously treated with Ethephon. [Best results from Hazel^[TM] are obtained with [ornamentals] [and] [cut flowers] at the optimum maturity level for long term storage.] Prolonged or repeated treatment may be beneficial to the [cut flowers] [and] [or] [ornamentals]. Storage in controlled atmosphere is required for [cut flowers] [and] [or] [ornamentals] that is to be held longer than 6 months.

Maintaining the cold chain (keeping the [ornamentals] [and] [or] [cut flowers] cool at all times) and strict adherence to sanitary practices remain essential in maintaining safe and high-quality [ornamentals] [and] [or] [cut flowers].

STORAGE AND DISPOSAL

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

STORAGE:

Individual packet(s): Hazel must be kept cold and in its original sealed packaging prior to application. Store in original [foil] [outer] sealed [packaging] [pouch]. If storing this product for less than 1 month, store at 32 °F (0 °C) or if storing this product up to1 year, it must be stored at -4 °F (-20 °C) or colder to remain effective or to remain fully effective. [Use all sachets in the original [foil] [outer] sealed [packaging] [pouch] in accordance with the usage application chart above.] [Do not store Hazel^[TM] sachets for later use after they have been removed from their original [foil] [outer] [packaging] [pouch] as Hazel^[TM] is designed to work immediately after removal from the original [foil] [outer] [packaging] [pouch].]

Container of individual packets(s): Hazel must be kept cold and in its original sealed packaging prior to application. [If storing Hazel for < 1 month, Hazel may be stored at 32 °F (0 °C).] If storing up to 1 year, Hazel must be stored at -4 °F (-20 °C) or colder.

DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Discard Hazel^[TM] sachets as waste. Do not remove Hazel^[TM] powder from the sachet.

CONTAINER/PACKAGING HANDLING: Nonrefillable packaging. Do not reuse or refill the original [foil] [outer] [packaging] [pouch].

WARRANTY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product.

HAZEL TECHNOLOGIES, INC. warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when stored and used in accordance with label directions. HAZEL TECHNOLOGIES, INC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY, OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, all of which are beyond the control of HAZEL TECHNOLOGIES, INC. To the extent permitted by applicable law, Buyer and User agree to hold HAZEL TECHNOLOGIES, INC harmless from any claims relating to such factors. Buyer and User agree that HAZEL TECHNOLOGIES, INC. is not responsible for any crops or [produce] [fruit] that fail to ripen due to misuse of this product. Handling, storage, and use of the product by Buyer and User are beyond the control of HAZEL TECHNOLOGIES, INC. and Seller. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of HAZEL TECHNOLOGIES, INC., and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, in no event shall HAZEL TECHNOLOGIES, INC. be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF HAZEL TECHNOLOGIES, INCFOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF HAZEL TECHNOLOGIES, INC., THE REPLACEMENT OF THE PRODUCT.

Optional Label Claims

General Claims

- Convenient formulation and delivery system.
- Protects [cut flowers] [and] [or] [ornamentals] during storage and shipping.
- Protects [cut flowers] [and] [or] [ornamentals] shelf life
- No water activation necessary.
- Recyclable and biodegradable.
- Inhibits ethylene action.
- 1-MCP reduces respiration rate and increase resistance to ethylene.
- Extends the shelf life of ornamental plants and cut flowers.
- Odorless and tasteless.
- Provides slow release of 1-MCP
- Can help protect against cold-chain breakage.
- Can be used at any scale, from individual boxes to bulk shipments.
- Increases shelf life of cut flowers.
- Helps maintain firmness in flowers and plants.
- Helps maintain color in flowers and plants.
- Helps maintain total soluble solids (TSS) in flowers and plants.
- Prevents yellowing in garland chrysanthemum from the effects of ethylene.
- Helps prevent blossom abscission and enhances bloom stability in flowers.

Alternative Brand Names

Hazel Bloom Hazel Fresh Hazel 100 FruitBrite Hazel Extend Hazel Embark Hazel Shield Hazel Protect Hazel Kore Omnifresh Hazel Viva Hazel Vitalia Hazel Encore Perennia HT HT100

OPTIONAL GRAPHICS- SEE GRAPHICS DOCUMENT

(Individual Unit)

Hazel^[™]

[by Hazel[[®]] [by Hazel Tech [[®]] [by Hazel Technologies]

[For management of post-harvest freshness]

Active Ingredients:

1-Methylcyclopropene	3.0%
Other Ingredients	97.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN

See full label attached to the outer container for Directions for Use, Storage and Disposal for this unit.

EPA Est. No.:

EPA Reg. No.: 92120-1

Net contents:

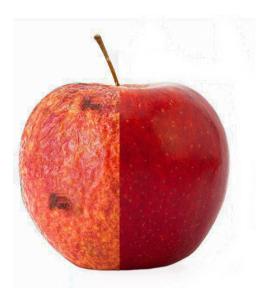
Batch code:

[A]

[Contains] [a] [Patented Technology] [[PROUDLY] MADE IN THE USA]

Not for sale or use after [DATE]

[Patent Pending]



1.1 Apple



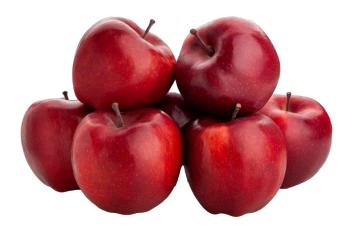
1.2 AppleBin



1.3 AppleBinPrep



A consequences in the second

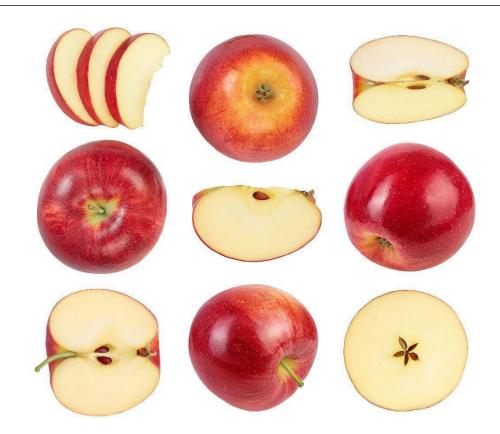


1.5 Applesisolated





1.6 AppleVarieties



1.7 AppleVarietyGraphics



1.8 AppleWhole



1.9 AppleWholeRightSide



1.10 BoxApples



1.11 BunchApples



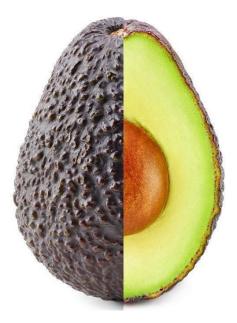
1.12 ManyAppleVariety



1.14 Stackappleiso



2.1 Avocado



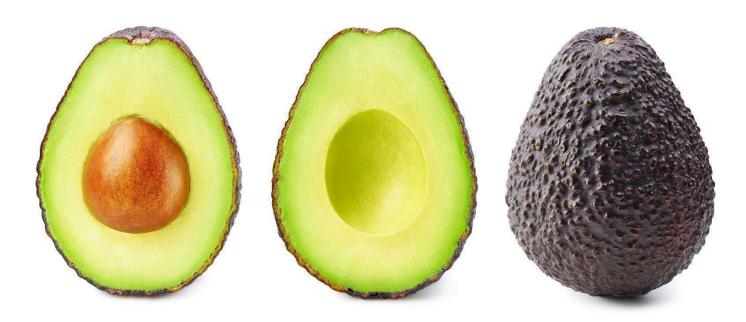
2.2 Avocado_SliceInside



2.3 AvocadoBulk



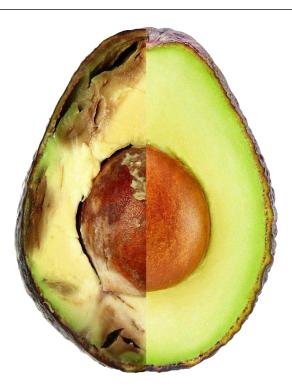
2.4 AvocadoBulkinBoxes



2.5 AvocadoOutsideInside



2.6 AvocadoVarietyGraphics

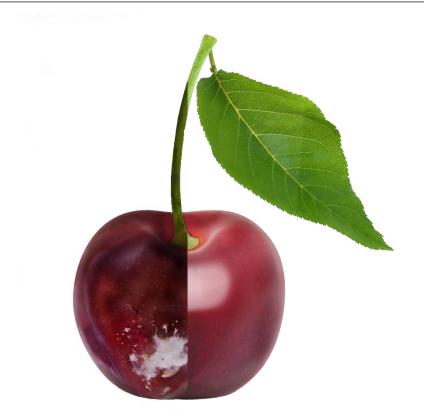


2.7 HighRes-AvocadoSidebySide



2.8 SliedAvocado_Leaves





3.2 Cherry



3.3 CherryAssemblyLine



3.4 RanierCherryIso



4.1 BunchGrapes



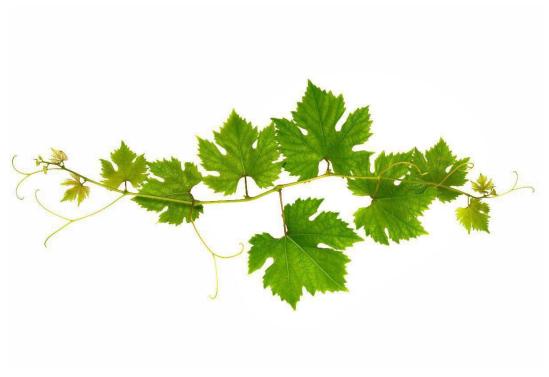
4.2 GrapeBoxnosachet



4.3 Grapelsolated



4.5 GrapesBunch



4.6 GrapeVine



4.7 Redgrapebunchiso



5.1 BulkGoldKiwifruit





5.3 Kiwifruit_WholeandSliced_Gold



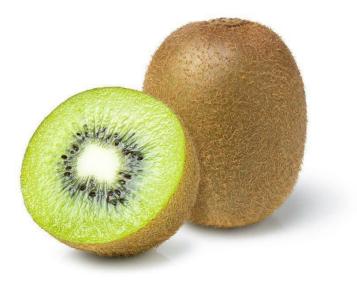
5.4 Kiwifruit+Vine



5.5 KiwifruitFlower



5.6 KiwifruitGoldandGreen



5.7 KiwifruitSlice



5.8 UpdatedKiwifruit



6.1 Cantaloupe



6.2 Cantaloupe1



6.3 CrenshawMelon



6.4 Honeydew



6.5 MelonSlice



6.6 MelonSlice2



6.7 VarietyMelons



6.8 Watermelon



7.1 BulkPapaya



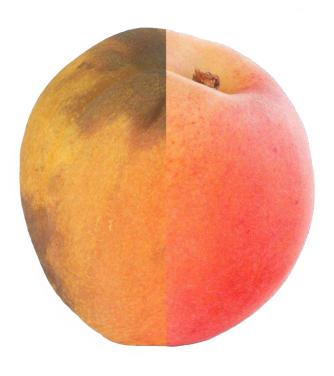
7.2 Papaya



7.3 Papaya_Sliced



7.4 PapayaVarietyGraphics



8.1 Apricot



8.2 Apricotisolated



8.3 ApricotSlice



8.4 ApricotWhole



8.5 Box_NectarinePackingLine



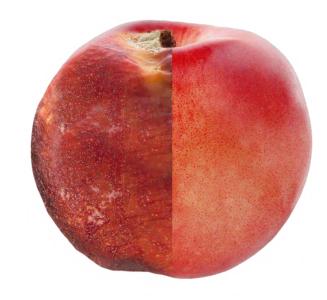
8.6 CherriesDuo



8.7 CherriesMultiple



8.8 Cherryfalling



8.11 Nectarine



8.12 Nectarine_WHOLE



8.13 NectarineWhole+Sliced



8.14 Peach



8.15 Peach_



8.16 PeachatRetail



8.17 Peach-Box



8.18 PeachHighQuality



8.19 PeachWhole+Slice



8.20 PileCherries



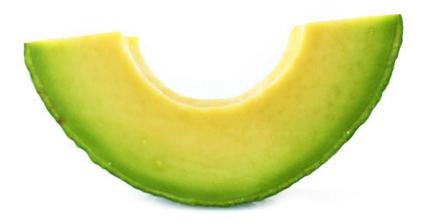
8.23 Plum rev



8.24 Plum_



8.25 PlumPoorQuality



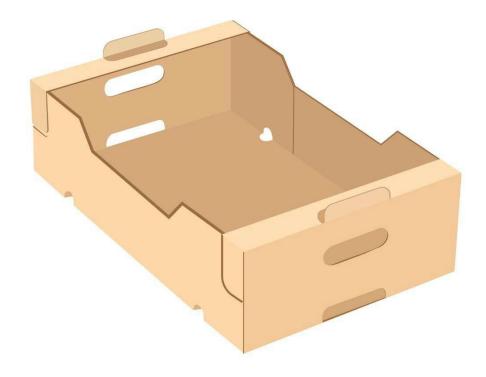
8.26 Sliced_Avocado



8.27 Sliced_Avocado_Multiple



8.28 StonefruitWhole



9.1 BoxforProduce