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**IDAPA 02
TITLE 06
Chapter 19**

**02.06.19 - APPLE AND CHERRY QUARANTINE RULES
(by Provision of Idaho Code, Title 22, Chapters 19 and 20;
and Title 67, Chapter 52)**

000. -- 009. (RESERVED).

010. PURPOSE.

To protect the Idaho apple and cherry industries from possible infestation by the apple maggot, *Rhagoletis pomonella*. (10-15-85)

011. -- 049. (RESERVED).

050. PESTS, COMMODITIES AND AREAS COVERED.

01. Pest. Apple maggot, *Rhagoletis pomonella*, a dipterous insect belonging to the family Tephritidae. This pest in larval stage lives within the fruit of the host plant where it may cause extensive damage. (10-15-85)

02. Commodities Covered. All fresh fruits of apple, pear and hawthorn, and domesticated and wild cherries. (10-15-85)

03. Area Under Quarantine. All states where apple maggot, *Rhagoletis pomonella* is present. (10-15-85)

051. -- 099. (RESERVED).

100. RESTRICTIONS.

01. Commodities. None of the commodities covered in Subsection 050.02 may be shipped from the area under quarantine into any county in Idaho, except as hereinafter provided. (10-15-85)

02. Exemptions. (10-15-85)

a. Commodities in original unopened containers, each bearing labels or other identifying marks evidencing origin may be reshipped to Idaho from any point within the area under quarantine. (10-15-85)

b. Apples which were exposed to controlled atmosphere storage for a continuous period of ninety (90) days, during which period the temperature within the storage room is maintained at thirty-eight degrees (38F) Fahrenheit (three point three degrees Centigrade (3.3C)) or less may be admitted into Idaho provided said storage room or building is approved by the proper authorities in the state of origin as a controlled atmosphere facility. Each lot or shipment of such apples to Idaho must be accompanied by a certificate from the state of origin evidencing that the fruits are in their original unopened containers. (10-15-85)

c. Apples held in cold storage for a continuous period of forty (40) days or more, during which period the temperature within the storage room is maintained at thirty-two degrees Fahrenheit (32F) (zero degrees Centigrade (0C)) or less, may be admitted into Idaho provided each lot or shipment is accompanied by a certificate from the state of origin evidencing that the fruits are in their original unopened containers. (10-15-85)

d. No restrictions are placed by this rule on entry into Idaho of fruits which upon arrival are frozen solid and which are under refrigeration to assure their solid frozen state. (10-15-85)

e. Fresh apples and cherries which were grown in areas under quarantine may be shipped into Idaho under the following conditions: (10-15-85)

i. The department of agriculture of the state of origin shall conduct a trapping program for apple maggot in the state's apple and cherry growing areas; shall provide immediate written notification to the Idaho

Department of Agriculture of detections of apple maggot in counties in which apple maggot had not previously been detected; and shall provide immediate written notification to the Idaho Department of Agriculture of detection of apple maggot flies or larvae in commercial apple and cherry orchards (including flies trapped in perimeter/border rows). The notification shall include the name and address of the orchards and the county in which the orchards are located. (10-15-85)

ii. If apple maggot is detected within two (2) miles of commercial apple and cherry orchards, the department of agriculture of the state of origin shall ensure that all known apple maggot hosts between the affected commercial apple and cherry orchards are trapped and monitored. (10-15-85)

iii. If apple maggot is detected within one-half (1/2) mile of commercial apple and cherry orchards, the department of agriculture of the state of origin shall ensure that traps are placed in all affected orchards and monitored, and that all affected orchardists immediately apply to their orchards apple maggot control sprays of the type and at the rate/dosage recommended by the Idaho Department of Agriculture; and the department of agriculture of the state of origin shall further ensure that such treatment is continued at fourteen (14) day intervals, or at intervals in accordance with label directions, until the end of the harvest season. (10-15-85)

iv. In addition, the department of agriculture of the state of origin shall apply pesticide sprays, or use other control means, on all known non-commercial apple maggot host plants between affected orchards and the point of detection when deemed necessary by the department of agriculture of the state of origin to protect commercial orchards threatened by apple maggot. (10-15-85)

v. If an apple maggot is detected in a commercial apple and cherry orchard, including border rows, the department of agriculture of the state of origin shall ensure that the orchardist immediately apply apple maggot control sprays, as indicated in condition paragraph iii. above, and shall further ensure that such treatment is continued at fourteen (14) day intervals, or at intervals in accordance with label directions, until the end of the harvest season. (10-15-85)

vi. The department of agriculture of the state of origin shall ensure that all apple and cherry orchardists in the apple maggot infested areas follow other apple maggot management practices recommended by the department of agriculture of the state of origin. (10-15-85)

vii. The department of agriculture of the state of origin shall ensure that apples for fresh market which were grown within a one-half (1/2) mile radius of an apple maggot find were sampled and inspected as follows: (10-15-85)

(1) All grower lots shall be sampled. (10-15-85)

(2) A minimum of two (2) containers per one-hundred (100) shall be sampled. (10-15-85)

(3) Minimum sample size shall be fifty (50) apples per sample. (10-15-85)

(4) A sufficient number of apples (a minimum of twenty (20) apples) shall be cut and inspected internally to determine if there is any evidence of an apple maggot infestation. Visible insect stings and similar marks shall be trimmed. If apple maggot injury is detected, a minimum of one-hundred (100) apples from the grower lot shall be cut and inspected for apple maggot larvae. (10-15-85)

(5) If the grower lot being inspected contains apple maggot or obvious apple maggot damage, it shall not be shipped into Idaho. (10-15-85)

(6) The identity of the fruit shall be maintained on each container of the lot inspected with the proper identification number issued by the department of agriculture of the state of origin. (10-15-85)

viii. The department of agriculture of the state of origin shall ensure that field run lots of apples for processing which were grown within a one-half (1/2) mile radius of an apple maggot find are sampled and inspected as follows: (10-15-85)

- (1) Random samples shall be taken from containers by or under the direct supervision of an agricultural/horticultural inspector of the department of agriculture of the state of origin. (10-15-85)
- (2) Samples shall be a minimum of three-fourths of one percent (.75%) of the net weight of the lot presented for inspection. Minimum sample size shall be fifty (50) pounds. (10-15-85)
- (3) Samples shall be washed prior to inspection if dirt, dust, or other residue is present on the fruit. (10-15-85)
- (4) A sufficient number of apples (a minimum of twenty (20) apples) shall be cut and inspected internally to determine if there is any evidence of an apple maggot infestation. Visible insect stings and similar marks shall be cut or trimmed. If apple maggot injury is detected, a minimum of one-hundred (100) apples from the grower lot shall be cut and inspected for apple maggot larvae. (10-15-85)
- (5) The identity of the fruit shall be maintained. (10-15-85)
- (6) If the lot being inspected contains apple maggot larvae, it shall not be shipped into Idaho. (10-15-85)
- ix. Except as provided below, the department of agriculture of the state of origin shall ensure that each shipment of apples and cherries is accompanied by a certificate, signed by a representative of the department of agriculture of the state of origin, naming the shipper, stating the identification number of the lot, the number of containers in the shipment, and the name and address of the consignee, and affirming that the shipment is in compliance with the requirements of this quarantine rule. (10-15-85)
- x. Bulk field run apples in cartons or bins are not eligible to be shipped into Idaho under these rules. (10-15-85)
- xi. Apples and cherries produced in counties infested with apple maggot and which were grown in commercial orchards not threatened by apple maggot may enter Idaho under the state of origin routine inspection program and without cold or controlled atmosphere storage (for apples). (10-15-85)
- xii. The department of agriculture of the state of origin shall ensure that vehicles transporting apples and cherries to Idaho are tarped or otherwise covered or that the apples and cherries are in closed vans. (10-15-85)
- xiii. The department of agriculture of the state of origin shall pay transportation and per diem expenses for up to two (2) trips for an Idaho Department of Agriculture representative to visit the state of origin to observe the apple maggot trapping/control program and to ensure that the rules are met at origin. (10-15-85)
- xiv. Apple and cherry fruits shipped to Idaho under these rules are subject to inspection upon arrival in Idaho. Any grower lot found infested with apple maggot, or any other live, serious plant pest, shall immediately be shipped out of Idaho, and the grower's eligibility to ship under these rules shall be canceled immediately. (10-15-85)
- xv. Apple and cherry fruits prohibited movement by any apple maggot interior quarantine or other regulations of the department of agriculture of the state of origin shall not be shipped into Idaho. (10-15-85)
- xvi. The Washington State University's management recommendations for apple maggot, as modified by the Idaho Department of Agriculture, are attached to and incorporated by reference as though fully set forth into these rules. (10-15-85)

101. -- 149. (RESERVED).

150. MANAGEMENT RECOMMENDATIONS FOR APPLE MAGGOT -- MONITORING RECOMMENDATIONS.

01. Counties Not Known To Be Infested. Counties not known to be infested by apple maggot need not conduct any special monitoring programs in commercial orchards. If the apple maggot is detected in new areas of the

State, immediate notice will be given to fruit industry representatives in that area. (10-15-85)

02. **Counties Known To Be Infested.** In counties where the apple maggot is known to occur, monitoring actions will depend upon how closely a commercial apple or cherry orchard is to a known apple maggot detection. If the apple maggot is detected within two (2) miles of an apple orchard, then apple maggot hosts (unsprayed apple trees, imported or ornamental hawthorn, cherries, native hawthorn and crab apple) between the orchard and the point of detection shall be monitored using the Zoecon apple maggot trap as described below. The apple maggot trap does not have a large range of attraction; therefore as many hosts as possible should be monitored. Special emphasis shall be placed on trappings of hosts within one-half (1/2) mile of an apple orchard. Monitoring of cherries and early maturing apple and crab apple varieties in July and August, then shifting activities to later maturing apple and hawthorns in late August through October, is a good method to spread monitoring activities between host plants when they are most attractive to the apple maggot. (10-15-85)

03. **Detection Within One-Half (1/2) Mile.** If an apple maggot is detected within one-half (1/2) mile of an apple or cherry orchard, then initiate monitoring of the orchard border. Monitor orchard borders which are adjacent to wild habitats and continue to monitor wild apple maggot hosts outside the orchard. It is not necessary to monitor borders contiguous with other commercial orchards. Place traps in trees every one-hundred to one-hundred fifty (100-150) feet. Where dusty roads occur, place traps one (1) to two (2) trees in from the orchard border. Check traps and collect flies as described below. (10-15-85)

04. **Trap Type.** The Pherocon AM trap is the recommended monitoring tool for the apple maggot. This trap is attractive to the apple maggot fly because of its color (bright yellow) and odor from chemicals mixed in the sticky material on the trap. This trap is not attractive from great distances, so placement and maintenance is critical if reliable results are to be obtained. (10-15-85)

05. **Trap Placement and Maintenance.** The AM trap should be placed within the fruiting canopy of the tree. Attach the trap securely to a limb so that it will not move in a light wind. Remove all the fruit and foliage from within twelve (12) to eighteen (18) inches of the trap so that it sets in an open area within the canopy. Align the trap so that the broad surfaces of the trap are facing the foliage and fruit within the canopy and not facing toward the outside of the tree. Traps should be examined every seven (7) days; more often in commercial orchards if possible. Remove suspect flies from the trap and place in a vial with a solvent (1,1,1 trichlorethane) which can be obtained at hardware stores. Include a label written in pencil indicating the date trapped and location. Correct identification of the apple maggot fly can only be made in a laboratory by trained personnel. (10-15-85)

06. **Identification.** Thus properly preserved flies must be sent to an appropriate location for identification. Replace traps at least every three (3) weeks, more often if traps become dirty or covered with other insects. Traps shall remain in place through October. (10-15-85)

151. -- 199. (RESERVED).

200. CONTROL RECOMMENDATIONS.

01. **Counties Where No Detection Has Occurred.** Counties where the apple maggot has not been detected need not apply additional protective sprays specifically for the apple maggot. (10-15-85)

02. **Counties Where Detection Has Occurred.** In Counties where the apple maggot has been detected, control recommendations depend upon how closely an apple orchard is to an apple maggot detection. If the apple maggot is detected greater than one-half (1/2) mile from an orchard, then protective sprays specifically for the apple maggot are not required. If the apple maggot is detected one-half (1/2) mile or less from an apple orchard, then apply control sprays immediately, place traps out in the orchard if not already in place, and initiate monitoring. Fourteen (14) days is the effective residue life of the recommended materials. If, fourteen (14) days after the first spray, flies are again detected within one-half (1/2) mile of the orchard, apply an additional spray. Repeat applications every fourteen (14) days if apple maggot flies continue to be caught within one-half (1/2) mile of the orchard. Repeating protective sprays specifically for the apple maggot is not necessary until the apple maggot is detected again. (10-15-85)

201. -- 249. (RESERVED).

250. MATERIAL RECOMMENDED FOR APPLE MAGGOT CONTROL.

01. Table for Materials for Apple Maggot Control.

Pest or Disease To Be Controlled	Use of Any of the Listed Materials	Amount Per Acre	Amount Per 100 Gallons to Harvest	Days from Last Spray
Apple maggot	Guthion (50% WP)	2 pounds	1/2 pound	7
	Imidan (50% WP)	6 pounds	1 1/2 pounds	7
	Zolone (25% WP)	6 pounds	1 1/2 pounds	14

02. Note on Application. Guthion and Imidan at above rates can be applied by air late in the season if ground sprayers cannot be pulled through the orchard. Water used to prepare Imidan spray mixes shall be adjusted to a pH of six point five (6.5) before adding the chemical. (10-15-85)

251. -- 299. (RESERVED).

300. OTHER MANAGEMENT RECOMMENDATIONS.

01. Host Material. Removal of apple maggot host material from an area one-fourth (1/4) to one-half (1/2) mile around the orchard will help reduce the movement of maggot into the orchard. Wild or unsprayed apple trees, native hawthorns, imported or ornamental hawthorns, and crab apples represent high risk apple maggot hosts which should be removed. (10-15-85)

02. Protection. Second generation codling moth sprays applied in late July or early August will give protection against the apple maggot for fourteen (14) days provided the recommended rates given above are used. (10-15-85)

301. -- 349. (RESERVED).

350. EFFECTIVE DATE.

These rules shall be in full force and effect on and after October 15, 1985. (10-15-85)

351. -- 999. (RESERVED).