FOR INFORMATION AND ACTION
DA-2022-07
May 12, 2022

Subject: APHIS Modifies the Conditions for the Interstate Movement of Rutaceous Leaves for Consumption

To: State and Territory Agricultural Regulatory Officials

Effective immediately, the Animal and Plant Health Inspection Service (APHIS) is modifying the conditions for the interstate movement of fresh, mature rutaceous leaves for consumption as described in Federal Order DA-2015-04. Based on the conclusions of a pathway analysis risk evaluation completed in 2022, APHIS is allowing the interstate movement of rutaceous leaves for consumption, listed in Appendix III of the attached protocol, from areas quarantined for Asian citrus psyllid (ACP), citrus greening/Huanglongbing (CG/HLB), citrus canker (CC), citrus black spot (CBS), and/or sweet orange scab (SOS), using the same protocol outlined in DA-2015-04.

According to the protocol, producers, packing houses, and distributors of fresh, mature rutaceous leaves for consumption who wish to move leaves interstate from the ACP, CG, CBS, CC, and/or SOS quarantine areas must operate under a signed compliance agreement. APHIS will conduct periodic surveys to verify low pest prevalence and on-site inspections where the leaves are produced and certify each shipment to ensure movement of pest and disease-free leaves. The mechanical and physical processes outlined in the protocol are required for fresh, mature rutaceous leaves for consumption from ACP and/or CG quarantine areas. Leaves from CBS, CC, and/or SOS quarantine areas may move under certificate after the leaves have been visually inspected and found to be free from symptoms; these leaves do not need to undergo the mechanical and physical processes unless they also originate from an ACP and/or CG quarantine area.

The attached Federal Order supersedes DA-2015-04. State agricultural authorities may prescribe additional safeguards and protocols; for example, the State of Louisiana will prohibit the movement of rutaceous leaves for consumption originating from an area quarantined for CBS or CC.

The attached Federal Order and protocol can also be found at:

https://www.aphis.usda.gov/aphis/ourfocus/planthealth/plant-pest-and-disease-programs/pests-and-diseases/citrus/citrus-federal-orders/citrus-policy-federal-orders

APHIS will publish a notice of this change in the Federal Register. For additional information, you may call the Director of Specialty Crops and Cotton Pests, Shailaja Rabindran, at (301) 851-2167.

/s/
Dr. Mark L Davidson
Deputy Administrator
Plant Protection and Quarantine

Attachments: Federal Order; Protocol and Appendices

United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

Federal Order

Interstate Movement of Rutaceous Leaves for Consumption

DA-2022-07
May 12, 2022

Effective immediately, the Animal and Plant Health Inspection Service (APHIS) is modifying the conditions for the interstate movement of fresh, mature rutaceous leaves for consumption.

This Federal Order is issued in accordance with the regulatory authority provided by the Plant Protection Act of June 20, 2000, as amended, Section 412(a), 7 U.S.C. 7712(a). The Act authorizes the Secretary of Agriculture to prohibit or restrict the movement in interstate commerce of any plant, plant part, or article, or means of conveyance, if the Secretary determines the prohibition or restriction is necessary to prevent the dissemination of a plant pest within the United States. This Federal Order is also issued pursuant to the regulations promulgated under the Plant Protection Act found at 7 Code of Federal Regulations (C.F.R.) §§ 301.75 (citrus canker) and 301.76 (Asian citrus psyllid and citrus greening) et seq. The regulations designate certain articles, including leaves, as regulated articles for citrus canker (CC), citrus greening/Huanglongbing (CG/HLB), and the Asian citrus psyllid (ACP). The regulations also specify the conditions under which such articles may be moved interstate from areas quarantined for CC, CG, and/or ACP.

Based on the conclusions of a pathway analysis risk evaluation completed in 2022, APHIS is allowing the interstate movement of fresh, mature rutaceous leaves for consumption, listed in Appendix III of the attached protocol, from areas quarantined for ACP, CG, CC, CBS, and/or SOS, using the same protocol outlined in DA-2015-04. According to the protocol, producers, packing houses, and distributors of fresh, mature rutaceous leaves for consumption who wish to move leaves interstate from the ACP, CG, CBS, CC, and/or SOS quarantine areas must operate under a signed compliance agreement. APHIS will conduct periodic surveys to verify low pest prevalence and on-site inspections where the leaves are produced and certify each shipment to ensure movement of pest and disease-free leaves. The mechanical and physical processes outlined in the protocol are required for these fresh, mature rutaceous leaves for consumption from ACP and/or CG quarantine areas. Leaves from CBS, CC, and/or SOS quarantine areas may move under certificate after the leaves have been visually inspected and found to be free from symptoms; these leaves do not need to undergo the mechanical and physical processes unless they also originate from an ACP and/or CG quarantine area.

Effective immediately, movement of fresh, mature rutaceous leaves for consumption must be in accordance with this Federal Order, and applicable conditions of 7 C.F.R. § 301.75 and 7 C.F.R. § 301.76. State agricultural authorities may prescribe additional safeguards and protocols; for example, the State of Louisiana will prohibit the movement of rutaceous leaves for consumption originating from an area quarantined for CBS or CC.

The attached Federal Order supersedes DA-2015-04, and can also be found at:

https://www.aphis.usda.gov/aphis/ourfocus/planthealth/plant-pest-and-disease-programs/pests-and-diseases/citrus/citrus-federal-orders/citrus-policy-federal-orders

APHIS will publish a notice of this change in the Federal Register. For additional information, you may call the Director of Specialty Crops and Cotton Pests, Shailaja Rabindran, at 301-851-2167.

United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

Protocol for the Interstate Movement of Fresh, Mature Rutaceous Leaves for Consumption

May X, 2022

The interstate movement of rutaceous leaves is prohibited from areas quarantined for Asian citrus psyllid (ACP), citrus greening/Huanglongbing (CG/HLB), citrus black spot (CBS), citrus canker (CC), and sweet orange scab (SOS), unless moved in accordance with (1) regulations contained in 7 C.F.R. §§ 301.75 (CC) and 301.76 (ACP and CG), (2) federal orders for movement conditions for regulated articles from quarantine areas, (3) all applicable state laws, and (4) the requirements below.

This protocol:

- Provides conditions for the interstate movement of fresh, mature rutaceous leaves for consumption from areas quarantined for ACP, CG, CBS, CC, and/or SOS;
    - Specifies that Leaf Processing Steps B-E described below are only required for movement of fresh, mature rutaceous leaves from ACP and/or CG quarantine areas.
    - Specifies that leaves originating from quarantine areas only for CBS, CC, and/or SOS may move under certificate after the leaves have been visually inspected and found to be free from symptoms. These leaves do not need to undergo the mechanical and physical processes required for leaves from ACP and/or CG quarantine areas.
- Is based on a USDA APHIS PPQ systems approach, risk assessments, and pathway analysis documents (see reference section);
- Was demonstrated in the field under commercial conditions, and was determined to be feasible and acceptable to growers;

I. General Requirements

A. Compliance Agreements, Certificates, and Inspection

1. Facilities engaged in producing, processing, handling, and packaging of fresh, mature rutaceous leaves for consumption must enter into a compliance agreement with APHIS if they wish to ship the regulated articles interstate.
2. The fresh, mature rutaceous leaves for consumption may be shipped interstate to all States if accompanied by a certificate issued by an inspector verifying that all relevant conditions of this protocol, and any additional requirements stipulated in the compliance agreement have been met. The certificate must be present on both the paperwork accompanying the shipment and on the containers in which the regulated articles are packed.
3. A compliance agreement that has been issued may be withdrawn, either orally or in writing, by an inspector, if they determine that the holder of the compliance agreement has not complied with all conditions in this protocol. If the withdrawal is orally submitted, the withdrawal and the reasons for the withdrawal will be confirmed in

4. writing as promptly as circumstances allow. Any person whose compliance agreement has been withdrawn may appeal the decision in writing to the Administrator within ten days after receiving the written notification of the withdrawal. The appeal must state all the facts and reasons upon which the person relies to show that the compliance agreement was wrongfully cancelled. The Administrator must grant or deny the appeal, in writing, stating the reasons for the decision, as promptly as circumstances allow. If there is a conflict as to any material fact, a hearing will be held to resolve the conflict. Rules of practice concerning the hearing will be adopted by the Administrator.
5. The adoption and use of the protocol is subject to monitoring by an inspector who is responsible for documenting inspection and compliance.

II. Leaf Processing Steps (see examples of equipment in Appendix II)

A. Harvesting

- Fresh, mature leaves must only be harvested from groves that are actively being managed for the pests or diseases associated with the quarantine(s) in place and that have a low prevalence of the pest.
- The quarantine pest population or incidence levels in groves may be determined by examining yellow sticky traps placed in the grove or by visual examination of plants in the grove.
- Upon arrival at the site and prior to harvesting leaves, inspectors must check traps or inspect trees to determine the prevalence of pests or diseases in the grove.
- If pests or diseases are detected in the grove, the inspector must notify the grower that pest management measures should be applied before the next leaf harvest.

B. Shaking

1. The location where leaves are shaken must be physically separated (e.g., different area, enclosed room, or screened area) from the area where the leaves will be washed. The inspector must verify that the two areas are separated.
2. Harvested leaves must be shaken using a tumbling device or an equivalent method approved by a regulatory official.
3. The mesh size of the tumbling device should be one-half inch or larger.
4. The device should not be filled more than half full of leaves by volume.
5. Leaves must be continuously mechanically shaken at ambient air temperature for 2 minutes.
6. Leaves must be shaken over a reservoir of water mixed with detergent or wash product to capture any insects, spores, or detritus that are dislodged during the shaking process.
7. After shaking, leaves should be placed in a clean container and moved to the washing area.

C. Washing

1. Leaves that are contained in a clean washtub or other container must be washed in potable water amended with a single washing product.

2. The washing product must be applied at the following concentration:

Product	Amount
• Environné	¼ cup per gallon
• Rebel Green	¼ cup per gallon
• Veggie Wash	¼ cup per gallon

(See Appendix I for more information about the washing products)

3. Leaves must be washed at ambient air temperature with continuous agitation for 2 minutes.
4. The volume of leaves per volume of water must not exceed 50% and leaves must be completely submerged during the entire washing step.

D. Rinsing

1. The rinsing process may be conducted in the same area where the leaves are washed.
2. The leaves may be rinsed at ambient air temperature by:
    - Submersion, with continuous agitation, in a tub or basin containing potable water. The volume of leaves per volume of rinse water should not exceed 50%; or
    - Arranging the leaves in a single layer on a one-half inch mesh screen then spraying the leaves with potable water using a power sprayer or hose nozzle.
3. The leaves must be rinsed for a minimum of 2 minutes or until the wash water and washing product residues are removed.

E. Drying

1. The drying process may be conducted in the same area where the leaves are washed and rinsed; if possible, move the washed, cleaned, and rinsed leaves to a separate clean area for drying.
2. If it is necessary to move the leaves for drying, move the leaves in a clean container.
3. For ACP and/or CG quarantines:
    a. Yellow sticky traps must be placed and continuously maintained in the drying area.
    b. The traps must be monitored before inspection of the final leaf product.
    c. If ACP are found on the traps:
        i. The official may require that a larger number of leaves be sampled before the final product can be released; and
        ii. The grower should be informed that increased safeguarding efforts to exclude ACP should be adopted.

F. Packaging

1. The leaves must be packaged in clean, insect-proof packaging.

G. Final Inspection (Instructions to inspectors)

1. Before shipment, the leaves and packing material must be inspected.
2. Inspect the leaves and packing material in a pest and disease-free area.
3. Open the bags of leaves in a clean, pest and disease-free area.
4. Remove the leaves from the packaging material.
5. Spread the leaves on a clean white cloth or white paper in a well-lit area.
6. Inspect by:
    - Inspecting inside surfaces of packaging, and
    - Turning over and examining surfaces of leaves, and
    - Inspecting the cloth or paper after lifting off the leaves.
7. A 10x hand lens or lighted magnifier may aid in closely examining the leaves.
8. The number of leaves that must be inspected is based upon the sampling guidelines listed below in Table 1.
9. Table 1 - Instructions for use:
    - Determine the weight and total number of leaves per lot to be shipped.
    - Then select the number of leaves from the lot given in the third column from the left for inspection.
    - If there are more than 20 pounds per lot, then divide the lot into parts of 20 pounds or less and sample each part based on the weight.
    - If a lot is divided into smaller parcels, then take some of the sample from each parcel.
    - The fourth column is the number of leaves that the person examining the leaves would skip when taking a sample. The goal is to sample the lot of leaves in a stratified manner rather than in a random manner.
    - Example: for the first line in the table, skip 1 leaf for every 20 leaves sampled; for the second line, skip 1 leaf for every 4 leaves sampled.

Table 1: Leaf Sampling Guidelines for Final Inspection of Leaves

Weight in 1bs.	Total Leaves	Number of Leaves to Sample	Leaf Skip Interval
0.25	125	119	1.0504
0.50	250	194	1.2887
0.75	375	291	1.2887
1.00	500	316	1.5823
1.25	625	329	1.8997
1.50	750	395	1.8987
1.75	875	394	2.2208
2.00	1,000	450	2.2222
2.25	1,125	442	2.5452
2.50	1,250	435	2.8736
2.75	1,375	478	2.8766
3.00	1,500	468	3.2051
3.25	1,625	459	3.5403
3.50	1,750	495	3.5354
3.75	1,875	485	3.8660
4.00	2,000	517	3.8685
4.25	2,125	506	4.1996
4.50	2,250	496	4.5363
4.75	2,375	524	4.5324
5.00	2,500	514	4.8638
5.25	2,625	505	5.1980
5.50	2,750	529	5.1985
5.75	2,875	520	5.5288
6.00	3,000	542	5.5351
6.25	3,125	533	5.8630
6.50	3,250	524	6.2023
6.75	3,375	544	6.2040
7.00	3,500	536	6.5299
7.25	3,625	528	6.8655
7.50	3,750	546	6.8681
7.75	3,875	538	7.2026
8.00	4,000	556	7.1942
8.25	4,125	548	7.5274
8.50	4,250	540	7.8704
8.75	4,375	556	7.8687
9.00	4,500	549	8.1967
9.25	4,625	542	8.5332
9.50	4,750	557	8.5278
9.75	4,875	550	8.8636
10.00	5,000	564	8.8652
10.25	5,125	557	9.2011
10.50	5,250	550	9.5455

Weight in 1bs.	Total Leaves	Number of Leaves to Sample	Leaf Skip Interval
10.75	5,375	564	9.5301
11.00	5,500	557	9.8743
11.25	5,625	551	10.2087
11.50	5,750	563	10.2131
11.75	5,875	557	10.5476
12.00	6,000	569	10.5448
12.25	6,125	563	10.8792
12.50	6,250	558	11.2007
12.75	6,375	569	11.2039
13.00	6,500	563	11.5453
13.25	6,625	558	11.8728
13.50	6,750	568	11.8838
13.75	6,875	563	12.2114
14.00	7,000	573	12.2164
14.25	7,125	568	12.5440
14.50	7,250	563	12.8774
14.75	7,375	573	12.8709
15.00	7,500	568	13.2042
15.25	7,625	563	13.5435
15.50	7,750	572	13.5490
15.75	7,875	567	13.8889
16.00	8,000	576	13.8889
16.25	8,125	572	14.2045
16.50	8,250	567	14.5503
16.75	8,375	576	14.5399
17.00	8,500	571	14.8862
17.25	8,625	567	15.2116
17.50	8,750	575	15.2174
17.75	8,875	571	15.5429
18.00	9,000	579	15.5440
18.25	9,125	574	15.8972
18.50	9,250	570	16.2281
18.75	9,375	578	16.2197
19.00	9,500	574	16.5505
19.25	9,625	570	16.8860
19.50	9,750	577	16.8977
19.75	9,875	573	17.2339
20.00	10,000	581	17.2117

10. Retain and report detected insects/disease.
11. If any signs of actionable pests or disease, or flush material, are found, the lot(s) being inspected must be rejected.
12. There is zero tolerance for the presence or indications of any life stage of the pest or disease presence.
13. There is zero tolerance for flush material.

H. Definitions

Certificate. A document, stamp, or other means of identification approved by APHIS and issued by an inspector or person operating under a compliance agreement when he or she finds that, because of certain conditions, a regulated article can be moved safely from an area quarantined for ACP, CG, CBS, CC, and/or SOS, without spreading the psyllid or the diseases.

Compliance Agreement. A written agreement between APHIS and a person engaged in the business of growing, maintaining, processing, handling, packing, or moving regulated articles for interstate movement, in which the person agrees to comply with these guidelines.

Flush. Newly developing leaves; cluster of very young and feather stage leaves; the expanding plant terminals that are pale green in color and not yet fully hardened.

Fresh. Leaves that are newly harvested.

Inspector. An individual authorized by the Administrator to perform the duties required under this protocol.

Mature. Leaves that have completed growth and natural development.

I. Acronyms

ACP – Asian Citrus Psyllid
CBS – Citrus Black Spot
CC – Citrus Canker
CFR – Code of Federal Regulations
CG – Citrus Greening, synonymous with HLB
HLB – Huanglongbing, synonymous with CG
SOS – Sweet Orange Scab

J. References

USDA-APHIS-PPQ. 2012. Assessing and Mitigating the Quarantine Risk of Asian Citrus Psyllid, *Diaphorina citri* Kuwayama (Hemiptera: Psyllidae) on Fresh, Mature Leaves of Kaffir Lime (*Citrus hystrix* DC.), Curry [*Bergera koenigii* (L.) Spreng.], and Bael [*Aegle marmelos* (L.) Corr. Serr.] for Consumption. 30 pp.

USDA APHIS PPQ. 2022. Leaves for consumption as a domestic pathway for Asian citrus psyllid, citrus greening, citrus canker, citrus black spot, and sweet orange scab. 12pp.

Appendix I: Fruit and Vegetable Wash Ingredients

1. Environné: Purified water, natural cleaning agents (derived from plant oils), polysorbate- 20 (derived from sorbitol/berries), grapefruit seed extract and lemon-orange extract. Consumer Health Research, Inc. Rosenburg, OR 97470. www.environne.com

2. Rebel Green: Purified water, natural cleansing agents (derived from plant oils), polysorbate-20 (derived from sorbitol/berries), grapefruit seed extract and lemon-orange extract. Rebel Green LLC, Milwaukee, WI 53202. www.rebelgreen.com

3. Veggie Wash: Water, natural cleaners made from corn, palm and coconut oil, citrus oil, sodium citrate (a natural derivative of citrus fruit), glycerin (from coconut oil) and grapefruit seed extract. Beaumont Products, Inc. Kennesaw, GA 30144. www.veggie-wash.com

Appendix II: Examples of Equipment

Figure 1. Raffle drum-type tumbler with catch tray.

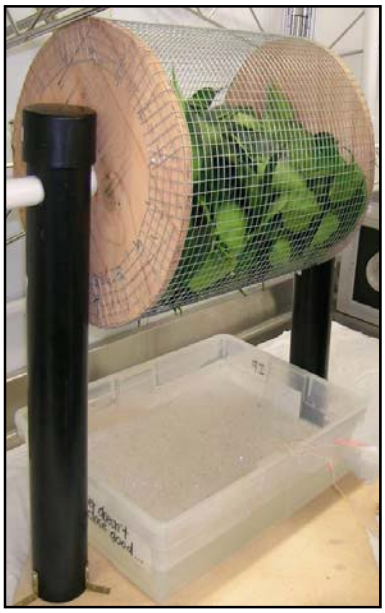

Figure 2. Raffle drum-type tumbler with catch pan.

Figure 3. Leaf wash basin.

Figure 4. Rinse hose and mesh to support leaves.

Figure 5. Raffle drum with shield to direct falling debris.

Figure 6. Cylindrical mesh basket in wash drum.

Figure 7. Mesh wash basket.

Figure 8. Wash tub with air hose to produce foaming action.

Figure 9. Rinse hose with potable water.

Figure 10. Leaves spread out to dry.

Appendix III. List of rutaceous plants whose leaves are produced for consumption

RUTACEAE

Host name	Common names
Aurantioideae: Aurantieae	
Aegle marmelos (L.) Corrêa	Indian bael, bilva patra, bel patra, bilwa patra
Afraegle paniculata (Schumach.) Engl.	Nigerian powder-flask fruit
Citrus amblycarpa (Hassk.) Ochse	Nasnaran mandarin
Citrus hystrix DC.	kaffir lime
Citrus maxima (Burm.) Merr. (syn. *Citrus grandis* Osbeck)	pummelo
Citrus reticulata Blanco	mandarin
Citrus x *aurantiifolia* (Christm.) Swingle	Key lime
Citrus x *aurantium* L.	bitter orange
Citrus x *junos* Siebold ex Tanaka	yuzu
Citrus x *limon* (L.) Osbeck (syn. *Citrus* x *limon* (L.) Burm. f., *Citrus* x *limonia* Osbeck, *Citrus* x *volkameriana* (Risso) V. Ten. & Pasq.)	lemon
Citrus x *paradisi* Macfad.	grapefruit
Murraya euchrestifolia Hayata	curry leaf
Poncirus trifoliata (L.) Raf.	Trifoliate orange
Severinia buxifolia (Poir.) Tenore (syn. *Atalantia buxifolia* (Poir.) Oliv)	Chinese box-orange
Aurantioideae: Clauseneae	
Bergera koenigii L. (syn. *Murraya koenigii* (L.) Spreng.)	curry leaf
Clausena anisum-olens (Blanco) Merr.	anis
Clausena excavata Burm. f.	
Toddalioideae	
Toddalia asiatica (L.) Lam.	orange climber