

# Postharvest Citrus Roundup

**Mark A. Ritenour**

University of Florida

Indian River Research and Education Center

Estes Citrus Inc

# Global Packaging Changes

Latest information from

**Max Teplitski**

Chief Science Officer

International Fresh Produce Association

# Canada

- **Plastic bans are facing legal challenges in Canada**
  - The courts declared that banning all plastics is illegal
  - The Canadian government recently published a study where they recognized food safety issues as critical to conversations about packaging
- They, however, state that 25–40% of fresh produce currently sold packaged could/should be sold unpackaged
  - They specifically identify commodities that are packaged for convenience or to increase sales

# Canada

- Initially these bans focused on plastic packaging (even reusable or recyclable packaging)
  - Secondary/transportation plastic packaging (RPCs, bins) are also under the microscope
  - There is also a push to move PLU stickers to be universally compostable

# The European Union

- **Packaging and Packaging Waste Regulation (PPWR)**
- PPWR has cleared most hurdles, but the newly seated EU Parliament will have to vote on it this Fall to finally adopt it
  - Given that it had broad support across the spectrum, IFPA anticipates it will pass

# The European Union - PPWR

- **Recyclability**
  - By **1 January 2030**, all packaging will have to be recyclable by fulfilling strict criteria
  - Recycling criteria to be established through delegated acts by 1 January 2028

# The European Union - PPWR

- As of Jan 2030, **ban on single-use plastic packaging for less than 1.5 kg of unprocessed fresh fruits and vegetables** (e.g., single-use plastic nets, bags, trays and containers) unless EU Member States adopt exemptions to avoid water loss, turgidity loss, microbiological hazards, physical shocks, oxidation or to avoid commingling of organic and non-organic fruits and vegetables (Art. 25 and Annex V pt. 2)
- **Compostable single-use plastic packaging for fresh-cuts would also be covered** by the ban unless EU Member States allow otherwise



# The European Union - PPWR

- **Industrially compostable sticky labels** – both promotional and functional – attached to fruits and vegetables are allowed (Art. 9)
  - **Applicable 36 months from date of entry into force** (as opposed to 24 months initially proposed)
  - Harmonized standards to set out technical specifications on compostability
- Commission to adopt delegated act to exempt plastic pallet wrapping and straps from reuse requirements (Art. 29(18), (2) and (3))



# The European Union

- **Currently unsettled:**
  - A list of fresh produce commodities that will be exempt from a ban on single-use packaging
    - This is **currently up to each member state**
  - Compostable packaging (industrially, home, or both) will be up to each member state
    - Compostable PLU stickers are currently allowed, but there is a missing comma in the “industrially and home compostable” statement

# **IRREC Fruit Data Collection & Grading Enhancements**



# **Pesticide Maximum Residue Limits**

# UF/IFAS Postharvest Programs & Information

[Home](#) [Indian River REC](#) [Horticultural Sciences](#)

GO

## ► General Postharvest Information

## ► Citrus Packinghouse Newsletter

[2010-2019](#), [Index](#), [Archives](#)

## ► Topical Index

[Preharvest](#), [Maturity & Quality](#), [Diseases & Decay Control](#), [Cold Storage](#), [Sanitation & Food Safety](#), [Marketing](#)



Our goal is to generate and disseminate information so that perishable horticultural commodities are delivered to consumers fresh, safe, nutritious and in the form (e.g. ripe or fresh-cut) consumers desire.

## Pesticide Residues & Limits



Look up the latest citrus MRLs for selected export markets and other resources for all commodities.

[More...](#)

## Mission

To support Florida's diverse Postharvest horticulture industries through research, extension and teaching.

## Calendar

- [Upcoming Events](#)
- [Previous Events](#)
- [Extension Calendar](#)

## IFAS Resources

- [EDIS: Postharvest and Handling](#)
- [IFAS Extension](#)
- [IFAS Research](#)
- [College of Agriculture](#)

<http://irrec.ifas.ufl.edu/postharvest/>

Or simply search for  
“UF Postharvest”



# Maximum Residue Limits (MRLs) in part-per-million (ppm) For Citrus - By Country

Because MRLs change frequently, no guarantee is made concerning the accuracy of the below values. Verify these values with other knowledgeable sources within specific markets of interest.

Materials **EXEMPT** from US tolerances or labeled only for application to **NONBEARING** trees are **NOT** included

**Proposed values** are not in effect and may never be adopted, but are listed to notify of potential upcoming changes

**"E"** indicates potential MRL reduction or elimination for the indicated market perhaps a year or more in the future.

Abbreviations: G = grapefruit, O = sweet orange, T = tangerine (mandarin), L = lemon, P=pummelo

Visit <http://irrec.ifas.ufl.edu/postharvest/> for more details & updates

Chemical Name	Brand or Trade Names (Examples only, not exhaustive)	U.S. Citrus	CODEX Citrus	Canada Citrus	EU (G & O only)	Great Britain (G & O only)	Japan (G & O only)	Korea (G & O only)	Taiwan (G & O only)
2,4-D (2,4-Dichlorophenoxyacetic acid)	Citrus Fix, Hivol	3	1	2	1	1	3	0.15	2
Abamectin	Agri-Mek, Clinch, Zephyr, ABBA, Epi-mek, Reaper; Minecto Pro	0.02	0.02	0.02	0.04 (E 3/8/23)	0.04	0.1	0.01 (G); 0.05 (O)	0.01
Acequinocyl	Kanemite	0.35		0.35	0.6	0.2 (G); 0.4 (O)	2	0.01 (G); 0.7 (O)	0.2
Acetamiprid	Assail	1	1	0.5	0.9	0.9	2	0.5	0.5
Acibenzolar-S-methyl	Blockade	0.02	0.015	0.1	0.01	0.01	0.02	0.015	
Azoxystrobin	Abound, Graduate A+, Quadris Top (component)	15	15	15	15	15	10	10	10
Beta-cyfluthrin	Baythroid XL	0.2	0.3	0.1	0.3 (E 6/29/20)	0.02	1	0.2	0.3
Bifenthrin	Brigade, Capture, Telstar, Fanfare	0.05	0.05	0.1	0.05 (E)	0.05	2	0.01 (G), 0.5 (O)	0.5
Boscalid	Pristine (component)	2	2	3	2	2	10	2	0.01 (G); 5 (O)
Bromacil	Bromo, Hyvar	0.1		0.1	0.01	0.01	0.1	0.04	0.5
Buprofezin	Applaud, Centaur	4	1	0.1 (G, L, P), 4 (O, T)	0.01	0.01	3	0.01 (G), 2.5 (O)	0.5
Carbaryl	Sevin	10	15	10	0.01	0.01	5	0.01 (G), 7 (O)	1
Carfentrazone-ethyl	Aim	0.1		0.1	0.02	0.01	0.1	0.01	0.1
Chlorantraniliprole	Altacor, part of VoliamFlexi	1.4	0.7	0.7	0.7	0.7	0.7	0.6	0.5
Chlorpyrifos	Lorsban, Nufos	1		1	0.01	0.01	1	0.01	0.01
Clothianidin	Belay	0.07	0.07	0.1	0.06 (E)	0.06	2	0.01 (G); 0.3 (O)	1
Cyantraniliprole	Exirel; Minecto Pro	0.7	0.7	0.7	0.9	0.9	0.7	0.7	
Cyfluthrin	Baythroid	0.2	0.3	0.1	0.03 (E)	0.02	1	0.2	0.3
Difenoconazole	Quadris Top (component), Miravis Top (component)	0.6	0.6	0.8	0.6	0.6	0.6	0.6	0.6

# Thank You!

For more information,  
visit the UF Postharvest Website

<http://irrec.ifas.ufl.edu/postharvest/>