

Critical updates for the 2021 Mid-Atlantic Commercial Vegetable Recommendations

Authored by Tom Kuhar, Professor, Department of Entomology, Virginia Tech, Mark Reiter, Associate Professor, Soil Fertility Specialist and Director, Eastern Shore AREC, Virginia Tech, Steve Rideout, Associate Professor and Plant Pathology Specialist, School of Plant and Environmental Sciences, Virginia Tech; and Vijay Singh, Assistant Professor and Weed Science Specialist, Eastern Shore AREC, Virginia Tech

The following updates are for the 2020-2021 Mid-Atlantic Commercial Vegetable Production Recommendations. VCE Publication No. [456-420 \(SPES-193P\)](#).

Fertility and Variety Updates

Chapter F. Commodity Recommendations

Additional Variety Recommendations

Beans recommended:

Snap Beans	Variety	Color	Length (inch)	Sieve Size	Use	Days	Heat Tol.	Reported Disease Resistance						
								BCMV	BCTV	CI	Ua	Psp	Xap	Pss
	Bridger	MDG	5.5	4-5	F,P	52	yes	R	R			I		I

- NOT recommended: Conga

Cole Crops recommended:

Broccoli	Variety	F1	Days	BR	DM	HS	Cold	Heat	S/F
	Abrams	Yes	78					yes	S,F

Cauliflower	Variety	Hybrid	Color	Days	Self-Wrapping
	Alcala	Yes	White	79	Yes
	Bermeo	Yes	White	69	Yes
	Flamenco	Yes	White	75	Yes

Leeks

- Recommended: Rally (F1)
- NOT recommended: Megaton, Runner and Takrima.

Muskmelons and Mixed Melons

- Recommended: Mixed Melons/Canary - Natal (5 lb.; PM 1,2; FW 1,2)
- NOT recommended: Muskmelons - Strike; Mixed Melons/Canary - Halo

Onions

Long Day

- Recommended: Legend (hybrid, 120, Storage, LD, Sp, yellow, long, DS, TP, L)
- NOT recommended: Fortress, Montero, Southport Red Globe, SV4058NV, Vision

Intermediate Day

- Recommended: Highlander (Yes, 90, Sweet Spanish, Yellow, short/medium, TP, L) Great White (yes, 103, Sweet Spanish, white, medium, TP, L)
- NOT recommended: Cimarron, Mt. Whitney

Overwinter

- Corrections: Bridger, storage (medium), method (DS/TP), and size (M-L)
- Recommended: T-448 (yes, n/a, storage, yellow, medium, DS, TP, L)
- NOT recommended: Hi-Keeper, Toughball, T-420

Peppers

- NOT recommended: Paladin or Playmaker

Pumpkins and Winter Squash

Pumpkins, 1-3 pounds

- Recommended: Little Giant* (PMT)
- NOT recommended: Rockafellow

Pumpkins, 10-20 pounds

- Recommended: Hermes* (PMT), Carbonado Gold* (PMT)
- NOT recommended: Bus Stop

Winter Squash/Acorn Type

- Recommended: Golden (insert in variety table after Table Gold)
- Celebration* (PMT, specialty) (insert in variety table after Autumn Delight*(PMT))
- NOT recommended: Table Queen

Winter Squash/Spaghetti Squash

- NOT recommended: Tivoli
- Winter Squash/Processing
- Recommended: Atlas*, Genesis* and other Butternut Types

Tomatoes recommended:

Tomatoes	Variety	Color	Season	Culture	Use	Disease Resistance	Plant Habit
	Bella Rosa	Red	Mid	Field	DM, LW, S	V,F,Asc,Gls,Tswv	D
	Red Snapper	Red	Mid, Late	Field	DM, LW, S	V,F,Asc,Gls,Tswv,Tylc	D
	STM 2255	Red	Early	Field	DM, LW, S	V,F,Asc,Gls,Tswv,Tylc	D
	SV 7101	Red	Late	Field	DM, LW, S	V,F,Asc,Gls,Tswv	D

Watermelons recommended:

Seedless Watermelon	Variety	Season	Disease Resistance	Size (lb)	Shape	Flesh Color	Rind Description
	Cracker Jack	Mid	Fon1 IR	15-19	oblong	Red	Medium green with dark green stripes
	Guardman	Mid	Co1, Fon	14-19	oblong	Red	Medium green with dark green stripes
	Shoreline	Late		16-18	oblong	Red	Medium green with dark mottled stripes

Chapter F. Weed Control

Weed Science Updates

Universal Changes

- Gramoxone SL 3 formulation; rates will be lower than Gramoxone SL 2. Refer to label for rates.

Crop Specific Changes

Beans (Snap and Lima)

13	Command 3ME	4 to 6 fl oz/A	clomazone	0.094 to 0.14 lb/A	45	12
<p>-Lima beans only. Special Local Needs Label 24(c) has been approved for the use of Command in DE, MD, NJ, and VA (expires 4/29/2025 in DE; 12/31/2025 in MD; 12/31/2024 in VA; 12/31/2022 in NJ).</p> <p>-Apply to suppress annual grasses and certain broadleaf weeds including common lambsquarters, velvetleaf, spurred anoda, and jimsonweed. Use the lower rate on coarse-textured soils low in organic matter and higher rates on fine-textured soils and on soils with high organic matter. Some temporary crop injury (partial whitening of leaf or stem tissue) may be apparent after crop emergence; beans recover from minor early injury without affecting yield or earliness.</p> <p>-Observe all precautions. Maximum number of applications per season: 1.</p>						

Cole Crops

- Select Max rate range is from 9 to 16 fl oz/A (0.068 to 0.12 lb ai/A) rather than 12 to 16 fl oz as currently listed.

Muskmelons and Mixed Melons

- Select Max rate range is from 9 to 16 fl oz/A (0.068 to 0.12 lb ai/A) rather than 12 to 16 fl oz as currently listed.

Peppers

- Reflex: 24c in NJ for transplanted peppers (bell, chile, cooking, and sweet). Labeled for pre-transplant application in bareground and under plastic mulch. Refer to label for use instructions.

Potatoes

- Select Max rate range is from 9 to 16 fl oz/A (0.068 to 0.12 lb ai/A) rather than 12 to 16 fl oz as currently listed.

3	Sonalan HFP 3EC	1.3 to 2.67	ethalfluralin	0.49 to 1.0 lb/A	--	24
-Supplemental labeling expires September 1, 2023. -Apply after planting but before potato emergence. -Use lower rates on coarse-textured soils and higher rates on medium- and fine-textured soil. -Must be incorporated for maximum effectiveness. Rainfall or irrigation (0.5 to 1 inch) is sufficient for incorporation. If rainfall or irrigation does not occur within 2 days of application, mechanical incorporation in the to 2 to 3 inches of soil is recommended. -Ensure incorporation equipment does not damage seed pieces or elongating sprouts. -Sonalan controls certain broadleaf weeds and annual grasses. Does not control yellow nutsedge, and only provides suppression of eastern black nightshade. Maximum application is 2.67 pt/A/season.						

Pumpkins and Winter Squash

- Reflex 24c label for Pumpkin now includes NJ, refer to label for use instructions.
- Select Max rate range is from 9 to 16 fl oz/A (0.068 to 0.12 lb ai/A) rather than 12 to 16 fl oz as currently listed.

Strawberries

- Select Max rate range is from 9 to 16 fl oz/A (0.068 to 0.12 lb ai/A) rather than 12 to 16 fl oz as currently listed.

Summer Squash

- Reflex 24c label includes NJ; refer to label for use instructions.

Sweet Corn

- Under entries for Impact and Laudis, precaution regarding mesotrione preemergence should be amended to state: Local experience has not seen issues with postemergence application if mesotrione (*e.g.*, Callisto, Lumax, Lexar, Acuron) was used preemergence; however not all sweet corn hybrids have been tested.

-Early POST Application Timing. Note if tank-mixing use the most restrictive timing.			
Herbicide	Timing	Premix Herbicides	Timing
Prowl 3.3 E / Prowl H20	up to 24 inches or V8*	Bicep	up to 12 inches
Atrazine	before corn is 12 inches	Harness Xtra	not allowed
Dual II Magnum	up to 40 inches	Keystone NXT	not allowed
Harness 7E	before corn is 12 inches	Acuron	not allowed

Surpass NXT	not allowed	Acuron Flexi	not allowed
Outlook	before corn is 12 inches	Lexar	not allowed
Zidua	up to V4 stage	Lumax	not allowed
Anthem Flex / Anthem Max	through the V4 stage		
Callisto	up to 30 inches or 8 leaves*		

Sinate 2.48	0.1 lb topramezone	27	21 fl oz	0.0164 lb topramezone	0.75 fl oz Impact 2.8SC
	2.47 lb glufosinate	10		0.4 lb glufosinate	21.9 fl oz Liberty 2.34L

* Use whichever criteria is more restrictive. Add:

- For use only with LibertyLink sweet corn hybrids. Application up to V6 stage
- Do not apply within 50 days of harvesting
- Only one application per year is allowed

Sweet Potatoes

- Maximum rate of Valor SX rate is 3 oz/A
- Add Valor EZ at a use rate of 3 fl oz
- Select Max rate range is from 9 to 16 fl oz/A (0.068 to 0.12 lb ai/A) rather than 12 to 16 fl oz as currently listed.

Tomatoes

- Reflex 24c now includes NJ, refer to label for use instructions.
- Select Max rate range is from 9 to 16 fl oz/A (0.068 to 0.12 lb ai/A) rather than 12 to 16 fl oz as currently listed.

Watermelons

- Reflex 24c now includes NJ, refer to label for use instructions.
- Select Max rate range is from 9 to 16 fl oz/A (0.068 to 0.12 lb ai/A) rather than 12 to 16 fl oz as currently listed.

Chapter F. Weed Control

Insecticide Updates

1. Proclaim (emamectin benzoate, MOA group 6) is labeled for Lepidopteran pests of all cucurbits including cucumber, summer squash, winter squash, and watermelon at a rate of 3.0 to 4.8 oz/A.
2. Agri-Mek SC (abamectin, MOA group 6) is labeled for spider mite and leafminer pests of legume vegetables at a rate of 1.7 to 3.5 fl oz/A.
3. FMC is reformulating chlorantraniliprole into a new product called Vantacor. Its concentration is greater than Coragen, but use rates are lower. It is labeled for onions, sweet corn, legumes, potatoes,

root and tuber vegetables, and edamame.

4. Senstar (pyriproxyfen + spirotetramat) is labeled for aphid, thrips, and whitefly control in brassicas, carrot, fruiting vegetables, leafy vegetables, legume vegetables, onions, and tuberous and corm vegetables.
5. Sivanto HL is now being marketed by Bayer. It is twice as concentrated as Sivanto Prime. It does not contain the same level of adjuvants as Sivanto Prime.
6. Zeal SC is now labeled for sweet corn for two spotted spider mite control at a rate of 2.0 to 6.0 fl oz/A.
7. Corteva is no longer manufacturing chlorpyrifos (Lorsban).
8. Elevest (bifenthrin + chlorantraniliprole) is now labeled for various crops, including sweet corn, succulent and dried legumes, root, tuber, and corm vegetables, and potato.

Chapter F. Weed Control

Fungicide Updates

Chapter F. Disease Control

Strawberries

New disease

Neopestalotiopsis was found on strawberry plug plants distributed to several states in the Mid-Atlantic region in 2020, resulting in some infected plantings. Foliar symptoms consist of tan leaf lesions that progress rapidly under moist conditions, and collapsed plants if the fungus invades the crown area. Fruit lesions start out tan but develop black sporulation in the center and could be mistaken for anthracnose fruit rot. Infected fruit may be seen in 2021 along with a progression of foliar and crown symptoms. See paragraph regarding Thiram SC 2(ee) recommendation.

Thiram SC 2(ee) recommendation for Neopestalotiopsis

Thiram is partially effective against Neopestalotiopsis on strawberries, and a 2(ee) label has been issued for use on this disease. The use rate is 2.5 qt/A, applications are allowed every 7 to 10 days with a maximum of 12 applications per year (limit of 5 applications per year in areas west of the Mississippi River). The PHI and REI are both 24 hours. Multiple applications will be needed. Thiram is effective on gray mold and has some efficacy on anthracnose. Other materials applied for anthracnose fruit rot such as Switch and Miravis Prime have shown some efficacy against Neopestalotiopsis according to trials in FL.

Miravis Prime for common diseases

Miravis Prime (active ingredients pydiflumetofen and fludioxinil, groups 7 and 12, respectively) is labeled for use on strawberries for gray mold, powdery mildew, and anthracnose. Resistance development is always a concern for single-site products including this one, so only two applications may be made per year at the maximum rate and each application must be alternated with products from other fungicide groups. The use rate is 9.1 to 13.4 fl oz/A for gray mold and powdery mildew, and 11.4 to 13.4 fl oz/A for anthracnose, with a PHI of 0 days, and an REI of 12 hours.

Visit Virginia Cooperative Extension: ext.vt.edu

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray McKinnie, Administrator, 1890 Extension Program, Virginia State University, Petersburg.

2021

ENTO-446NP