



ABCs of Fungicides for Cucurbits 2012

Numbers used before or after the Product (registered NYS) refer to fungicides with different MOA, followed by preharvest interval. [^{FRAC No. ie 40} Product ^{4PHI}] See: <http://vegetablemdonline.ppath.cornell.edu> (May 2012) T. A. Zitter, Department of Plant Pathology, Ithaca, NY

Fungicides are labeled for all cucurbits unless noted.

Systemic fungicides are in **Bold**. Protectants include: *chlorothalonil; sulfur; mancozeb; copper (2ee), ManKocide*.

A.) Powdery Mildew (PM) - occurs every year, so make sure to use of tolerant varieties if available for squash or pumpkins. Beginning when lesions are 1st detected inside the canopy on lower leaves (top or bottom).

PM sprays should include:

- ¹³Quintec³ (NOW registered on winter squash, pumpkins, gourds, muskmelon, and watermelon, but not cucumber or summer squash); begin usage early in the PM cycle then alternate with one of the following:
- ^{M2}Sulfur⁰ (good protectant, alone or tank-mixed with Quintec)
- ³Procure⁰ at ^{Hi rate 8 oz} + ^{M5}Bravo⁰ (or OLP) or ³Rally⁰ at ^{Hi rate 5 oz} + ^{M5}Bravo⁰ (or OLP) (NOTE: both Procure and Rally are in the same fungicide group, choose 1)
- Or consider ¹¹⁺⁷Pristine⁰
- Or consider protectants like ^{NA}JMS Stylet⁰ mineral oil or ^{M1}coppers⁰
- Or consider ³⁺⁹Inspire Super⁷ or [†]⁹⁺¹²Switch¹

Note: All strobilurin (Group 11) fungicides are not listed due to fungicide resistance for PM, and include Cabrio, Flint, Quadris, Quadris Opti, Sovran, Tanos, etc.

B.) Gummy Stem Blight (GSB)/also called Black rot - occurs most seasons when moisture is adequate after fruit set (end of July or beginning of Aug), and if rotation of less than 2 years is practiced.

GSB sprays should include:

- ^{M3}Penncozeb⁵ (or OLP)
- ^{M5}Bravo WS⁰ (or OLP)
- ³⁺⁹Inspire Super⁷ (GSB)
- [†]⁹⁺¹²Switch¹

Note: All strobilurin (Group 11) fungicides are not listed due to fungicide resistance for GSB, and include Cabrio, Flint, Quadris, Quadris Opti, Sovran, and Pristine. Also ^{1+Prot.}Topsin M¹ (or OLP) are no longer effective for GSB.

C.) Plectosporium - if disease has been previously found in Zucchini Squash or Pumpkins, and less than 2 year rotation is practiced, and if July-August rains occur (wet soils) then Plectosporium sprays (for above crops only) should include:

- ^{M5}Bravo Ultrex⁰ 2ee
- ³⁺⁹Inspire Super⁷ (Plectosporium)
- ¹¹Quadris¹, ¹¹⁺³Quadris Top¹, ¹¹Cabrio⁰, ¹¹Flint⁰ (but don't rely on sprays of these products for PM or GSB control)

D.) Phytophthora (P) and Downy Mildew (DM) – if P has previously occurred on your farm (must utilize disease management practices) **or** if DM is reported on tracking maps: <http://cdm.ipmpipe.org/scripts/map.php> (which monitors airborne spores of DM from Michigan, Ontario, Pennsylvania or New Jersey)

Then DM/ P sprays should include: Top 5 DM choices used "preventatively":

- ^{*22+M3}Gavel 50WG⁵ (not Pumpkin or W. Squash) (DM, P)
- ^{*43}Presidio² (*fluopicolide*) (DM, P) + must use protectant
- ^{*28}Previcur Flex² (DM) + protect.
- ²¹Ranman 400SC⁰ (DM, P) + protect.
- ¹¹⁺²⁷Tanos 50WG³ (DM, P suppression) + protectant

Top 4 DM choices, used "after disease is already present":

- ^{*43}Presidio² (*fluopicolide*) (DM, P) + must use protectant
- ^{*28}Previcur Flex² (DM) + protect.
- ²¹Ranman 400SC⁰ (DM, P) + protect.
- ¹¹⁺²⁷Tanos 50WG³ (DM, P suppression) + protectant

E.) If SCAB should be an issue:

- ^{M5}Bravo WS⁰ or OLP
- ^{M1}fixed coppers⁰, (a few per label)
- ^{M3+M1}ManKocide⁵
- ^{M3}mancozeb⁵ (all)
- ^{4+M5}Ridomil Gold Bravo⁰

Key: MOA= Modes of Action; OLF= other labeled product and/or formulation; ^M = multi-site activity and mixing partner to reduce risk of developing fungicide resistance; NA= not assigned; 2ee = allowed for specific disease not on original label. * = Restricted to use by registered applicators; † = Not for use on Long Island
Every effort has been made to provide correct, complete, and up-to-date information at the time of this presentation/publication. Trade names used are for convenience only. No endorsement of products intended, nor is criticism of unnamed products implied. These recommendations are not a substitute for pesticide labeling. Always read the product label before applying any pesticide.