

# Pumpkin -2017

## Suggested spray schedules for managing pumpkin diseases in Illinois in 2017.

### Registered chemicals for use on pumpkins.

Chemicals		Rate: product/A	(PHI)*	MOA**
Commercial Name	Common Name	(Max/season)	(Day)	code
Apron XL LS	mefenoxam	0.64 fl. oz./100 lb seed	--	4
Aprovia Top	difenoconazole + benzovindiflupyr	13.5 fl oz (53.6 fl oz)	0	3 + 7
Bravo (i.e., B.W.S. 6F)	chlorothalonil	2 pt (21 pt)	0	M
Cabrio 20EC	pyraclostrobin	16 oz (64 oz)	0	11
Catamaran 5.27SC	potassium phosphite + chlorothalonil	6 pt (50 pt)	1	M + M
Copper (Kocide, .....)	copper	1.25 lb (17.5 lb)	0	M
Flint, Gem	trifloxystrobin	1.5 -4 oz (16 oz)	0	11
Fontelis 1.67SC	penthiopyrad	12-16 fl oz (67 fl oz)	1	7
Forum 4.16SC	dimethomorph	6 fl oz (67 fl oz)	0	15
Gavel 75DF	mancozeb + zoxamide	1.5-2.0 lb (16 lb)	5	M + 22
Inspire Super SC	difenoconazole + cyprodinil	20 fl oz (80 fl oz)	7	3 + 9
Luna Experience SC	tebuconazole + fluopyram	17 fl oz (34 fl oz)	7	3 + 7
Luna Sensation SC	trifloxystrobin + fluopyram	7.6 fl oz (27.1 fl oz)	0	7 + 11
Mancozeb (Dithane, ...)	mancozeb	Dithane: 3 lb (24 lb)	5	M
Monsoon 3.6SC	tebuconazole	8 fl oz (24 fl oz)	7	3
Merivon 2.09SC	fluxapyroxad + pyraclostrobin	5.5 fl oz (16.5 fl oz)	0	7 + 11
Microthiol 80DF	sulfur	5-10 lb	0	M2
Omega 500F	fluazinam	1.5 pt (9 pt)	30	29
Orondis Opti SC	oxathiapipropilin + chlorothalonil	A: 4.8 fl oz (19.2 fl oz)	0	U15 + M
Orondis Ultra	oxathiapipropilin + mandipropamid	A: 4.8 fl oz (19.2 fl oz)	0	U15 + 40
Phosphite (ProPhyt, ...)	phosphorous acid products	Different rates	0	M
Presidio 4SC	fluopicolide	3-4 fl oz (12 fl oz)	2	43
Previcur Flex 66F	propamocarb	1.2 pt (6 pt)	2	28
Pristine 38WG	pyraclostrobin + boscalid	18.5 oz (74 oz)	0	11 + 7
Procure 480SC	triflumizole	8 fl oz (40 fl oz)	0	3
Quadris 2.08SC	azoxystrobin	15.5 fl oz (92.3 fl oz)	1	11
Quadris Opti 0.5 +5.0F	Azoxystrobin + chlorothalonil	3.2 pt (12.8 pt)	1	11 + M
Quintec 250SC	quinoxifen	6 fl oz (32 fl oz)	3	13
Rally 40W/Rally 40W	myclobutanil	5 oz (24 oz)	0	3
Ranman 400SC	cyazofamid	2.75 fl oz (16.5 fl oz)	0	21
Reason 500SC	fenamidone	5.5 fl oz (22 fl oz)	14	11
Revus 2.09SC	mandipropamid	8.0 fl oz (32 fl oz)	0	40
Ridomil Gold SL	mefenoxam	0.25 - 2 pt (2 pt)	5	4
Sovran 50WG	kresoxim-methyl	4.8 oz (19.2 oz)	0	11
Switch 62.5WG	cyprodinil + fludioxonil	14 oz (56 oz)	1	9 + 12
Tanos 50WDG	cymoxanil + famoxadone	10 oz (32 oz)	3	27 + 11
Toledo 3.6F	tebuconazole	6 fl oz (24 fl oz)	7	3
Topsin-M 70WP, Topsin 4.5SC	thiophanate methyl	8 oz, (48 oz) 10 fl oz (60 fl oz)	0	1
Torino 0.85SC	cyflufenamid	3.4 fl oz (6.8 fl oz)	0	U6
Vibe 2.5F	tebuconazole	6 fl oz (24 fl oz)	7	3
Vivando 500F	metrafenone	15.4 fl oz (46.2 fl oz)	0	U8
Zampro 525F	Ametoctradin + dimethomorph	14 fl oz (42 fl oz)	0	45 + 40
Zing 4.9 SC	zoxamide + chlorothalonil	36 fl oz (18 pt)	0	22 + M5

\* Time from last application to Harvest.

\*\* MOA – Mode of action. Each number or letter indicates a separate mode of action.

### Important considerations:

1. Avoid or minimize using strobilurin fungicides (Quadris, Quadris Opti, Cabrio, Flint, Pristine, ...).
2. Check the website “<http://www.ces.ncsu.edu/depts/pp/cucurbit>) for development and spread of downy mildew. Spray your field before downy mildew infection takes place. Use chlorothalonil (Bravo) before infection takes place. If infection has been observed in your field, spray your plants as recommended below. Revus and Omega are more effective in Illinois.
3. Spray for powdery mildew at first sign of the disease (check inside canopy). Usually, symptoms on the upper leaf surfaces signal an outbreak.
4. If you have Phytophthora problem, treat your seed with Apron XL LS (0.64 oz/100 lb seed) and spray the plants as recommended below.
5. If you have bacterial infection in fruit, you need to spray your field with a copper compound plus Dithane-M (mancozeb) from the time of fruit set until harvest. Keep your field as dry as possible.
6. Use 50 gallons of water per acres with ground sprayers; 5 gallons of water with airplane. Make sure you have through coverage of under leaf surfaces and inside the canopy.
7. Check the labels of the chemicals for up-to-date information and alternating or tank mix of the fungicides. In all sprays alternate effective chemicals with different modes of action.

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### Schedule I. For control of powdery mildew and bacterial spot.

Week 1*	Week 2	Week 3	Week 4	Week 5
Quintec + Copper	Procure or Torino + Copper	Quintec + Copper	Procure or Torino + Copper	Quintec + Copper

\* Start spray application at first sign of powdery mildew inside the canopy. The first spray in central Illinois is usually during the first week of August. Microthiol Disperss (sulfur) can be used for control of powdery mildew.

### Schedule II. For control of downy mildew, at first report in the state.

Week 1*	Week 2	Week 3	Week 4	Week 5
Revus + Bravo Weather Stik	Omega or Ranman** + Bravo Weather Stik	Revus + Bravo Weather Stik	Omega or Ranman + Bravo Weather Stik	Revus + Bravo Weather Stik

\* Start spray application at the report of downy mildew in the state.

\*\* Other fungicides that can be considered for control of downy mildew of pumpkin are: Forum, Gavel, Tanos, Previcur Flex, Tanos, Zampro, and Zing.

### Schedule III. For control of Phytophthora blight.

Week 1*	Week 2	Week 3	Week 4	Week 5	Week 6
Revus + Kocide-3000	Orondis Opti** + Kocide-3000	Revus + Kocide-3000	Orondis Opti + Kocide-3000	Revus + Kocide-3000	Orondis Opti + Kocide-3000

\* Start spray application at first observation in the low area of the field.

\*\* Other fungicides that can be considered for alternative to Orondis Opti for control of Phytophthora blight of cucurbits are: Ranman and Tanos.