

Pumpkin - 2021

Registered fungicides for managing pumpkin diseases and suggested spray schedules in commercial pumpkin fields in Illinois

Fungicides registered		Rate: product/A	REI*	(PHI)**	MOA***
Commercial Name	Common Name	(Max/season)	(h)	(Day)	code
Apron XL LS	mefenoxam	0.085-0.64 fl oz/100 lb			4
Bravo (i.e., B.W.S. 6F)	chlorothalonil	2 pt (21 pt)	12	0	M5
Cabrio 20EC	pyraclostrobin	16 oz (64 oz)	12	0	11
Copper (Kocide,)	copper	1.25 lb (17.5 lb)	48	0	M1
Elumin 4SC	ethaboxam	8 fl oz (16 fl oz)	12	2	22
Fontelis 1.67SC	penthiopyrad	12-16 fl oz (67 fl oz)	12	1	7
Forum 4.16SC	dimethomorph	6 fl oz (67 fl oz)	12	0	15
Gavel 75DF	mancozeb + zoxamide	1.5-2.0 lb (16 lb)	24	5	M + 22
Inspire Super	Difenoconazole + cyprodinil	16-20 fl oz (80 fl oz)	12	7	3, 9
Manzate PRO Stick	mancozeb	2-3 lb (24 lb)	24	5	M3
Microthiol 80DF	sulfur	5-10 lb	24	0	M2
Omega 500F	fluazinam	0.75-1.5 pt (7.5 pt)	12	7	29
Orondis Gold 200	oxathiapiprolin	4.8-9.6 fl oz (19.2 fl oz)	12	0	U15
Orondis Opti	chlorothalonil + oxathiapiprolin	1.75-2.5 pt (10 pt)	12	0	M5, 49
Orondis Ultra	mandipropamid + oxathiapiprolin	5.5-8 fl oz (32 fl oz)	12	0	40, 49
Presidio 4 SC	fluopicolide	4 fl oz (8 fl oz)	12		43
Previcur Flex 66F	propamocarb	1.2 pt (6 pt)	12	2	28
Pristine 38WG	pyraclostrobin + boscalid	12.5-18.5 oz (74 oz)	12	0	11 + 7
Procure 480SC	triflumizole	4-8 fl oz (40 fl oz)	12	0	3
ProPhyt, Phostrol, ...	phosphite	Check labels	12	0	33
Quadris 2.08SC	azoxystrobin	11-15.5 fl oz (90 fl oz)	4	1	11
Quadris Opti	Azoxystrobin + chlorothalonil	3.2 pt (12.8 pt)	12	1	11 + M
Quintec 250SC	quinoxifen	4-6 fl oz (32 fl oz)	12	3	13
Rally 40W	myclobutanil	2.5-5 oz (24 oz)	24	0	3
Ranman 400SC	cyazofamid	2.75 fl oz (16.5 fl oz)	12	0	21
Reason 500SC	fenamidone	5.5 fl oz (22 fl oz)	12	14	11
Regalia 12 Biofungicide	plant extract	2 pt	4	0	P5
Revus 2.09SC	mandipropamid	8.0 fl oz (32 fl oz)	4	0	40
Sovran 50WG	kresoxim-methyl	3.2-4.8 oz (19.2 oz)	12	0	11
Tanos 50WDG	cymoxanil + famoxadone	8-10 oz (32 oz)	12	3	27 + 11
Topsin-M 70WP, Topsin 4.5FL	thiophanate methyl	8 oz, (48 oz) 10 fl oz (60 fl oz)	12 12	0	1
Torino 0.85SC	cyflufenamid	3.4 fl oz (6.8 fl oz)	4	0	U6
Zampro 525F	dimethomorph + ametoctradin	14 fl oz (42 fl oz)	12	0	40 + 45
Zing 4.9 SC	zoxamide + chlorothalonil	30-36 fl oz (18 pt)	12	0	22 + M5

* Re-Entry Interval (hours). ** Pre-Harvest Interval (Time from last application to Harvest).

*** MOA: Mode of action. Each number and/or letter indicates a separate mode of action (FRAC Code).

Important considerations:

1. Check the website (<http://cdm.ipmpipe.org>) for downy mildew movement. Spray your field with chlorothalonil (e.g., Bravo Weather Stik) before infection by the downy mildew pathogen. If infection is noticed in your field, apply Orondis Opti or Revus plus chlorothalonil.
2. Spray for powdery mildew at first sign of the disease (check inside the canopy). Usually, symptoms on the upper leaf surfaces signal an outbreak.
3. If you have Phytophthora problem, treat your seed with Apron XL LS (0.64 oz/100 lb seed) and spray the plants with fungicides mentioned in the "Schedule IV" on the next page.
4. For bacterial spot, apply Actigard twice after seedling emergence, then begin spraying plants at vine spread with Manzate PRO Stick + Kocide-3000 alternated with Regalia + Kocide-3000.
5. Use 50 gallons of water per acre with ground sprayers, 5 gallons of water with airplane. Make sure you have through coverage of plants.
6. Check the labels for the up-to-date information.

Pumpkin – 2021 Suggested Spray Schedules

Schedule I. For control of only powdery mildew.

Week 1*	Week 2	Week 3	Week 4	Week 5
Procure	Quintec	Procure	Quintec	Procure

* Start spray applications at the first sign of powdery mildew inside the canopy (on vines or lower surfaces of leaves).

The first spray in central Illinois is usually during the last week of July or the first week of August. Microthiol Disperss (sulfur) can also be used for control of powdery mildew.

Schedule II. Full-season spray schedule (weekly intervals) for management of powdery mildew and bacterial spot. Begin application for managing bacterial spot at vine spread.

Week of spray								
1 (Fruit set)	2	3	4	5	6	7	8	9
Copper + Manzate PRO Stick	Copper + Regalia	Copper + Manzate PRO Stick	Quintec + Copper	Procure + Copper + Regalia	Quintec + Copper	Procure + Copper + Regalia	Quintec + Copper	Procure + Copper + Regalia

Schedule III. For management of powdery mildew and downy mildew (if downy mildew is reported in the area). Spray at weekly intervals. In Illinois, downy mildew usually occurs after July 15.

Week of spray					
1*	2**	3	4	5	6
Orondis Opti	Quintec + Ranman + Bravo Weather Stik	Procure + Revus + Bravo Weather Stik	Quintec + Orondis Opti	Procure + Ranman + Bravo Weather Stik	Quintec + Revus + Bravo Weather Stik

* Start spray-applications at first sign (or report) of downy mildew.

** Start spray-applications at the first sign of powdery mildew or downy mildew.

Schedule IV. For management of Phytophthora blight (also management of downy mildew). Spray at weekly intervals. In Illinois, Phytophthora vine and fruit infection can occur any time during the season.

Week of spray*						
1**	2	3	4	5	6	7
Orondis Ultra	Ranman + Silwet L-77	Revus + Kocide-3000	Orondis Ultra	Ranman + Silwet L-77	Revus + Kocide-3000	Ranman + Silwet L-77
Revus + Kocide-3000	Orondis Ultra (or Opti***)	Revus + Kocide-3000	Ranman + Silwet L-77	Revus + Kocide-3000	Ranman + Silwet L-77	Orondis Ultra

* Follow the recommendation provided in either the first row or in the second row.

** Start spray-applications at the first sign of Phytophthora infection or downy mildew.

*** Use a high rate (2.5 pt/acre) of Orondis Opti.