

## DISEASES of COMMERCIAL PECANS

Aaron Cato

Growth Stage	Disease	Product	Active Ingredient	FRAC Code	Rate/Acre	Re-entry Interval	Days to Harvest	Comments
Bud Break	Anthracoese Scab	Abound FL	azoxystrobin	11	6 - 12 fl oz	4 hours	45	Apply Abound when buds are bursting and first leaves are beginning to show.
	Downy spot Liver spot Powdery mildew Scab Vein spot Zonate leaf spot	Amistar Top	azoxystrobin + difenoconazole	11 3	8 - 14 fl oz	12 hours	45	Apply Amistar Top on a 14- to 21-day schedule, making no more than two sequential applications before alternating to another fungicide with a non-QoI (Group 11) mode of action.
	Downy leaf spot Liver spot Powdery mildew Scab Vein spot Zonate leaf spot	Quadris Top	azoxystrobin + difenoconazole	11 + 3	8 - 14 fl oz	12 hours	45	Apply Quadris Top on a 14 - 21 day schedule. Do not make more than 2 sequential applications.
	Anthracoese Downy leaf spot Powdery mildew Scab Zonate leaf spot	Topguard EQ	azoxystrobin + flutriafol	11 + 3	5 - 8 fl oz	12 hours	45	Apply Topguard EQ at bud break for scab.
	Anthracoese Downy leaf spot Powdery mildew Scab Zonate leaf spot	Quilt Xcel	azoxystrobin + propiconazole	11 + 3	14 - 21 fl oz	12 hours	45	Do not apply Quilt Xcel after shuck split.
	Scab	Pristine	boscalid + pyraclostrobin	7 + 11	10.5 - 14.5 oz	12 hours	14	Make no more than 4 applications of Pristine per season.
	Downy Spot Scab Powdery Mildew	Inspire Super	difenoconazole + cyprodinil	3 + 9	12 fl oz	12 hours	14	Apply Inspire Super on a 14 - 21 day schedule, making no more than two sequential applications before alternating to another fungicide with a different mode of action.
	Downy leaf spot Gnomonia leaf spot Leaf blotch Powdery mildew Scab Vein spot	Enable 2 F	fenbuconazole	3	8 fl oz	12 hours	28	Apply Enable 2 F when buds are bursting and first leaves are beginning to show. Do not apply after shuck split.
	Scab Powdery mildew Alternaria Anthracoese Shothole Eastern filbert blight Brown rot Downy spot Zonate leaf spot	Rhyme	flutriafol	3	3.5-7 fl oz	12 hours	14	For Pecan Scab control, start application at bud break. For all other disease apply preventatively or when conditions are favorable for disease development. Repeat as necessary if conditions are favorable for disease development.

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Bud Break (cont.)	Anthracnose Powdery mildew Scab	Luna Sensation	fluopyram + trifloxystrobin	7 + 11	4 - 7.6 fl oz	12 hours	14	Do not apply Luna Sensation after shuck split or within 30 days of harvest.
	Anthracnose Scab	Merivon	fluxapyroxad + pyraclostrobin	7 + 11	5 - 6.5 oz	12 hours	14	Begin applications of Merivon prior to onset of disease development and continue on a 7 - 21 day interval for the control of scab. Use the shorter interval and/or the higher rate when disease pressure is high.
	Scab	Sovran	kresoxim-methyl	11	2.4 - 4.8 oz	12 hours	45	Apply Sovran when buds are bursting and first leaves begin to show. See label.
	Scab	Quash	metconazole	3	2.5 - 3.5 oz	12 hours	25	Begin applications of Quash when leaves reach one-half mature size.
	Phytophthora Pythium Fusarium Rhizoctonia Powdery mildew	Fosphite	mono- and di-potassium salts of phosphorous acid	33	1 - 3 qt/gal (see label for trunk injection rates)	4 hours	0	Foliar, or aerial, or root dip, or irrigation or trunk injection. See label for rates and complete instructions. Do not apply during dormancy.
	Phytophthora Scab	Alude	mono- and di-potassium salts of phosphorous acid	33	2.5 - 5 pts/A	4 hours	See label.	Apply with first irrigation in spring for Phytophthora. Repeat at 3 - 5 month intervals. For scab begin at bud break as preventative.
	Downy leaf spot Leaf spot Liver spot Scab Vein spot Zonate leaf spot	PropiMax EC	propiconazole	3	6 - 8 fl oz	12 hours	Do not apply after shuck split.	Apply PropiMax on a 14-day schedule during bud break and re-pollination sprays. See label.
	Downy leaf spot Leaf spot Liver spot Powdery mildew Scab Vein spot Zonate leaf spot	Tilt	propiconazole	3	4 - 8 fl oz	12 hours	Do not apply after shuck split.	Apply Tilt on a 14-day schedule during bud break pre-pollination.
	Anthracnose Scab	Stratego	propiconazole + trifloxystrobin	3 + 11	10 oz	12 hours	30	Do not apply more than 2 sequential applications of Stratego before alternating with a fungicide with a different FRAC code.
	Brown leaf spot Downy leaf spot Fungal leaf scorch Leaf blotch Leaf spot Liver spot Powdery mildew Scab Sooty mold Vein spot Zonate leaf spot	Orbit 45 WP AGPAK/ Super Tin* 80 WP AGPAK	propiconazole + triphenyltin	3 + 30	5 acres/ 20 oz Orbit 45 WP AGPAK + 18.75 oz Super Tin 80 WP AGPAK	48 hours	30	Apply Orbit and Super Tin AGPAKS when new leaves are unfolding. See label for restrictions.

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Bud Break (cont.)	Downy leaf spot Liver spot Powdery mildew Scab Vein spot Zonate Leaf Spot	Miravis Top	pydiflumetofen + difenoconazole	3 + 7	6.8-9 fl oz./A	12 hours	45	Do not apply after shuck split.
	Scab	Headline SC	pyraclostrobin	11	6 - 7 oz	12 hours	14	Begin applications of Headline SC prior to disease development and continue on a 14-day interval.
	Anthracnose Scab	Adament 50 WG	tebuconazole + trifloxystrobin	3 + 11	3 - 8 oz	12 hours	60	Begin applications of Adament when conditions are favorable for disease but before infection. Apply on a 7 - 14 day spray schedule.
	Brown leaf spot Downy leaf spot Liver spot Powdery mildew Scab Stem end blight Vein spot Zonate leaf spot	Topsin M 70 WDG	thiophanate-methyl	1	1 lb	12 hours	Do not apply after shuck split.	Begin applications of Topsin when first leaves are showing and repeat at 3 - 4 week intervals until shuck split.
	Brown leaf spot Downy leaf spot Liver spot Powdery mildew Scab Stem end blight Vein spot Zonate leaf spot	Topsin M 70 WP	thiophanate-methyl	1	1 lb	12 hours	Do not apply after shuck split.	Begin applications of Topsin when first leaves are showing and repeat at 3 - 4 week intervals until shuck split.
Brown spot Downy spot Fungal leaf scorch Powdery mildew Scab Zonate leaf spot	Bonide Infuse Systemic Disease Control**	thiophanate-methyl	1	2 tbsp (1 fl oz) per gal of water	See label.	12 months for bearing trees	Non-bearing fruit and nut trees are those trees that will not produce fruit for a least one year after application of this product.  Apply product to the point just when it begins to run off the leaves.	

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	Brown leaf spot Downy leaf spot Leaf blotch Liver spot Powdery mildew Scab Sooty mold	Super Tin 80 WP*	triphenyltin hydroxide	30	5 - 7.5 oz	48 hours	30	Begin applications of Super Tin at pre-pollination before leaves begin unfolding.
Second Pre-Pollination Spray	Same as Bud Break							Apply 14 days after pre-bud sprays. Follow labels.
First Cover Spray	Same as Bud Break							Apply 14 days after pre-pollination spray or when young nuts first appear.
Second Cover Spray	Same as First Cover							Apply 3 weeks after first cover spray.
Third Cover Spray	Same as Second Cover							Apply 2 - 3 weeks after second cover spray.
Fourth Cover Spray	Same as Third Cover							Apply 2 - 3 weeks after third cover spray.
Fifth Cover Spray	Same as Fourth Cover							Apply 2 - 3 weeks after fourth cover spray.
Sixth Cover Spray	Same as Fifth Cover							Apply 2 - 3 weeks after fifth cover spray. A seventh spray may be needed if rainy weather persists in late August, but fungicides should not be applied after shucks begin to open.

\*Super Tin is a restricted use pesticide – see label for warnings.

\*\*Labeled for homeowner use.