

PRUNE (DRIED PLUM): CONVENTIONAL FUNGICIDE EFFICACY

Fungicide	Resistance risk (FRAC#) ¹	Brown rot		Russet scab	Rust
		Blossom	Fruit ²		
Bumper/Tilt ²	high (3)	++++	++++	----	+++
Elite/Tebucon/Teb/Toledo ^{2,7}	high (3)	++++	++++	----	+++
Fervent	Medium (3/7)	++++	++++	----	+++
Fontelis	high (3)	++++	+++	----	+++
Indar ²	high (3)	++++	++++	----	+++
Inspire Super	high (3/9)	++++	++++	----	+++
Luna Experience	medium (3/7) ⁴	++++	++++	ND	++++
Luna Sensation ²	medium (7/11) ⁴	++++	++++	ND	++++
Merivon	medium (7/11) ⁴	++++	++++	ND	ND
Pristine ²	medium (7/11) ⁴	++++	++++	ND	ND
Quash ²	high (3)	++++	++++	----	+++
Quadris Top ²	medium (3/11) ⁴	++++	++++	ND	++++
Quilt Xcel/Avaris 2XS ²	medium (3/11) ⁴	++++	++++	ND	++++
Rovral ⁵ + oil	low (2)	++++	NR	----	NR
Scala ⁶	high (9) ^{3,4}	++++	+++ ⁶	----	ND
Topsin-M/T-Methyl/Incognito/Cercobin+ oil ^{2,4}	high (1) ⁴	++++	++++	----	----
Vanguard ⁶	high (9) ^{3,4}	++++	+++ ⁶	----	ND
Elevate ^{2,7}	high (17) ⁴	+++	+++	ND	----
Rhyme/Topguard**	high (3)	+++	+++	----	+++
Rovral ⁵ /Iprodione /Nevado	low (2)	+++	NR	----	NR
Topsin-M/T-Methyl/Incognito ^{2,3}	high (1) ⁴	+++	+/-	----	----
Abound	high (11) ⁴	++	+	----	+++
Bravo/Chlorothalonil/Echo/Equus ^{8,9,10}	low (M5)	++	++	++	---- ⁹
Captan ^{7,8,10}	low (M4)	++	++	+++	----
Gem ⁷	high (11) ⁴	++	+	----	+++
Oso	high (19)	++	++	----	ND
Rally ²	high (3)	++	++	----	----
Sulfur ¹⁰	low (M2)	+/-	+/-	----	++

Rating: +++++= excellent and consistent, ++++= good and reliable, +++= moderate and variable, += limited and erratic, +/- = often ineffective, ---- = ineffective, ? = insufficient data or unknown, NR=not registered after bloom, and ND=no data

*** Registration pending in California.**

¹ Group numbers are assigned by the Fungicide Resistance Action Committee (FRAC) according to different modes of actions (for more information, see <http://www.frac.info/>). Fungicides with a different group number are suitable to alternate in a resistance management program. In California, make no more than one application of fungicides with mode-of-action Group numbers 1, 4, 9, 11, or 17 before rotating to a fungicide with a different mode-of-action Group number; for fungicides with other Group numbers, make no more than two consecutive applications before rotating to fungicide with a different mode-of-action Group number.

² Fruit brown rot treatments for fungicides in FRAC Groups 1,2, 3, 17, 7/11 are improved with the addition of 1-2% light summer oil. The oil is "light" summer oil (1-2% vol/vol). If applied in summer, fruit will lose their waxy bloom and look red. They will dry to normal color. Use of a sticker such as NuFilm-P (8 to 16 fl oz/A) and high gallonage (120-150 gal/A) applications will provide effective control and fruit will retain their waxy bloom.

³ Strains of *Monilinia fructicola* and *M. laxa* resistant to Topsin-M and T-Methyl have been reported in some California prune orchards. No more than two applications of Topsin-M or T-Methyl should be made each year. Resistant strains of the jacket rot fungus, *Botrytis cinerea*, and powdery mildew fungi have been reported in California on crops other than almond and stone fruits and may have the potential to develop in prune with overuse of fungicides with similar chemistry. Subpopulations of both *Monilinia* spp. have been shown to be resistant to AP (FRAC 9) fungicides on prune in CA.

⁴ To reduce the risk of resistance development, start treatments with a fungicide with a multi-site mode of action; rotate or mix fungicides with different mode-of-action FRAC numbers for subsequent applications, use labeled rates (preferably the upper range), and limit the total number of applications/season.

⁵ Blossom blight only; not registered for use after petal fall.

⁶ High summer temperatures and relative humidity reduce efficacy.

⁷ Registered for use on fresh prunes only.

⁸ Do not use in combination with or shortly before or after oil treatment.

⁹ Do not use after jacket (shuck) split.

¹⁰ Do not use sulfur, captan, or chlorothalonil in combination with or shortly before or after oil treatment.

PRUNE (DRIED PLUM): ORGANIC FUNGICIDE EFFICACY

Fungicide	Resistance risk (FRAC#) ¹	Brown rot		Russet scab	Rust
		Blossom	Fruit ²		
Dart	low	+++	++	----	+
EcoSwing	low	+++	++	----	+
Problad ¹	low	+++	----	----	----
Oso ¹	low	++	++	----	ND
Double Nickel 55 ² , Serenade ASO/Opti, Serifel, Taegro, etc.	low	++	----	----	+
Aviv ³	low	++	----	----	+
Sulfur ⁴	low (M2)	+/-	+/-	----	++

Rating: ++++= excellent and consistent, +++= good and reliable, ++= moderate and variable, += limited and erratic, +/- = often ineffective, ---- = ineffective, ? = insufficient data or unknown, NR=not registered after bloom, and ND=no data

¹ Pending registration in CA.

² Strains of *Bacillus amyloliquefaciens*.

³ Strains of *Bacillus subtilis*.

⁴ Do not use sulfur, captan, or chlorothalonil in combination with or shortly before or after oil treatment.

PRUNE (DRIED PLUM): TREATMENT TIMING

Note: Timings listed are effective but not all may be required for disease control. Timings used will depend upon orchard history of disease, length of bloom, and weather conditions each year.

Disease	Green bud	White bud	Full bloom	May	June	July
Brown rot ¹	+++	+++	+++	----	+	++
Russet scab ²	----	----	+++	----	----	----
Rust ³	----	----	----	+	++	+++

Rating: +++ = most effective, ++ = moderately effective, + = least effective, and ---- = ineffective

¹ Flowers are susceptible beginning with the emergence of the sepals (green bud) until the petals fall but are most susceptible when open.

² A physiological disorder; no pathogens involved.

³ More severe when late spring rains occur.