2023 Relative efficacy of fungicides for control of diseases of pepper in North Carolina

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Active ingredient	Trade name	FRAC group ¹	PHI (Days)	Anthracnose of fruit	Bacterial spot	Phytophthora blight (root and crown)	Phytophthora blight (fruit and foliage)	Pythium damping off	Southern blight
azoxystrobin	Quadris	11	0	+++	-	-	-	-	-
azoxystrobin + difenoconazole	Quadris Top	11 + 3	0	+++	-	-	-	-	-
azoxystrobin + flutriafol	Topguard	11 + 3	0	++	-	-	-	-	++
difenoconazole + benzovindiflupyr	Aprovia Top	7 + 3	0	+++	-	-	-	-	+
difenoconazole + cyprodinil	Inspire Super	3 + 9	0	++	-	-	-	-	-
famoxadone + cymoxanil	Tanos	11 + 27	3	+	-	-	+	-	-
fluopyram + trifloxystrobin	Luna Sensation	7 + 11	3	++	-	-	-	-	-
pyraclostrobin	Cabrio	11	0	++++	-	-	-	-	-
pyraclostrobin + fluxapyroxad	Priaxor	11 + 7	0	+++	-	1	-	-	+++
PCNB	Blocker	14	At plant	-	-	-	-	-	+++
penthiopyrad	Fontelis	7	0	++	-	-	-	-	+++
chlorothalonil	(various)	М	3	+	-	-	+	-	-
cyazofamid	Ranman	21	0	-	-	+++ R	++++	-	-
ethaboxam	Elumin	22	2	-	-	+++	+++	-	-
dimethomorph	Acrobat, Forum	40	4	-	-	-	+	-	-
dimethomorph + ametoctradin	Zampro	40 + 45	4	-	-	+++	++++	-	-
fluopicolide ³	Presidio	43	2	-	-	+++ R	++++	-	-
mandipropamid	Revus	40	1	-	-	+++	++++	-	-
mefenoxam ²	Ridomil Gold SL, Ultra Flourish	4	7	-	-	++++ ^R	-	++++	-
mefenoxam + copper	Ridomil Gold Copper	4 + M	7	+	++ ^R	ı	++++ ^R	-	-
oxathiapripolin + chlorothalonil	Orondis Opti	49 + M	0	-	-	+++	++++	-	-
oxathiapripolin + mefenoxam	Orondis Gold 200	49 + 4	0	-	-	++++	+++	-	-
oxathiapiprolin + mandipropamid	Orondis Ultra	49 + 40	0	-	-	-	++++	-	-
propamocarb	Previcur Flex	28	5	-	-	-	-	++++	-
pydiflumetofen + fludioxonil	Miravis Prime	7+11	0	-	-	-	-	-	-
Bacillus mycoides J	LifeGard WG	P6	0	-	++	-	-	-	-
Bacillus thuringiensis subsp. kurstaki strain ABTS-351 + methyl salicylate	LEAP ES	NA	NA	-	++	-	-	-	-
fixed copper	(various)	M	Check label	+	+++ ^{R,4}	1	++	-	-
mancozeb	(various)	М	5	++	+4	+	+	-	-
streptomycin sulfate ⁵	(various)	25	Not for field use	-	+++ ^R	-	-	-	-

Fungicides are separated into groups according to their mode of action and risk of resistance development. Numbers distinguish the different fungicide groups; whereas letters refer to multi-site activity.

Recommendations for the use of agricultural chemicals are included in this publication as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by NC State University or N.C. A&T State University nor discrimination against similar products or services not mentioned. Individuals who use agricultural chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical. For assistance, contact your local N.C. Cooperative Extension county center.

² *P. capsici* becomes resistant to mefenoxam quickly. Ridomil Gold may be applied to pepper at transplanting, but it is NOT registered for control of Phytophthora blight; the foliar blight phase of Phytophthora cannot be controlled with foliar applications of Ridomil Gold.

³ Presidio should always be tank mixed with a protectant (i.e. copper) to reduce the risk of fungicide resistance.

⁴ Copper tank-mixed with mancozeb enhances efficacy against bacterial spot.

⁵ Streptomycin may be used on transplants but is NOT registered for field use.

^R Resistance to this pesticide has been detected in the pathogen population.