

Technical Bulletin #67:

Agrochemical General Information Sheet - Metalaxyl

Metalaxyl: Fungicides

Registered trade names in Cambodia: Kalaxy 35 WP, Mataxyl 25WP

Formulation types: Wettable Power (WP), Dusts, Emulsifiable Concentrates (EC) and others

Chemical family: Phenylamide, acylalanine

What is Metalaxyl?

Metalaxyl is water soluble and is translocated readily from roots to the aerial parts of most plants, but its lateral translocation is slight. It is used in mixtures as a foliar spray for tropical and subtropical crops, as a seed or soil treatment for the control of soil-borne pathogens (*Pythium*, *phytophthora*) that cause seed and stem rot, damping-off, downy mildew, etc. on cucumbers, melons, squash, onions, chives, potatoes, tomatoes, peppers, herbs, eggplant, legumes, garlic, lettuce, a wide range of fruit, nut and vegetable crops.

How does it work? (Mode of Action)

Metalaxyl is a systemic fungicide with protective and curative properties and is absorbed through the leaves, stems and roots. It acts by suppressing sporangial formation, mycelia growth, and the establishment of new infections.

Resistance:

Repeated application enables fungicide resistance, meaning the fungicide ceases to provide effective control of a disease. To prevent and manage the resistance to Metalaxyl and other fungicides used for foliar disease control, follow the guidelines below:

- Reduce disease pressure through the use of good agricultural practices.
- Use tank or pre-packed mixtures of phenylamide (phenylamide is the chemical group Metalaxyl belongs to) with non-phenylamide fungicides.
- Limit the number of applications per crop cycle to 2-4 with a minimum spray interval of 14 days. Use non-phenylamide fungicides in between phenylamide sprays where shorter spray intervals are needed.
- Use preventively and avoid curative or eradication applications.
- Do not use soil applications for foliar disease control.

Human Hazards	Environmental Fate
Low acute toxicity	Bird (quail): Non toxic
Moderate eye irritation	Fish (trout): Slightly toxic
	Mammals (rabbit): Low toxic
	Bee (honey): Non toxic
	Ground/surface water: Non toxic

First aid measure:

Inhalation: Move patient to fresh air and consult a physician. Apply artificial respiration if necessary.

Skin Contact: Remove contaminated clothing and thoroughly wash affected area with soap and water. If skin irritation persists, consult a physician. Wash contaminated clothing before re-use.

Eye Contact: Rinse eyes with clean water to flush out the chemical. If irritation persists, call your physician or nearest health center.



Ingestion: If the person is fully conscious, immediately give large quantities of water to drink and get medical help. Never give anything by mouth to an unconscious person and do not induce vomiting.

Mitigation Measures:

- Applicator should wear protective clothing such as a long-sleeved shirt, long pants, rubber gloves, boots, glasses, etc.
- Avoid allowing children, pets, or sensitive people in treatment areas to prevent accidental exposure during pesticide applications.
- Avoid contact with mouth, eyes, and skin.
- Thoroughly wash contaminated clothes and body parts after spraying.
- Do not eat, drink or smoke while preparing or applying.
- Triple rinse empty containers prior to disposal. Do not reuse empty containers for any other purpose.
- Store original container in a cool, dry, ventilated place.
- Store away from foodstuffs, children, and animals.
- Do not allow product to get wet in storage.
- Never use or store in or around the home.
- Keep container sealed when not in use.
- Do not apply around open bodies of water (fish ponds) and water sources.
- Chemical sprayers and mix tanks have to be cleaned in designated areas.
- Apply under favorable weather conditions.
- Practice chemical rotation.
- Practice correct implementation of integrated pest management (IPM) practices.

Cambodia HARVEST

No. 46 Street 310 | Sangkat, Beong Keng Kang 1
Khan Chamkamorn | Phnom Penh, Cambodia
Tel: 855 (0) 23 996419

This bulletin is made possible by the support of the American People through the United States Agency for International Development (USAID). The content is the sole responsibility of Fintrac Inc. and does not necessarily reflect the views of USAID or the United States Government.

Recommendation Rate

Crop	Diseases	Recommended Rate			Remark
		Metalaxyl 25WP	Metalaxyl 35WP	Metalaxyl 250EC	
Cucumber, Cabbage	Downy mildew	Spraying 480g~900g/ha mixed with 750~900 L water	- 25-30g/tank of 16 l (foliar and stem spray), 2.5 tanks/1,000m ² - 0.5-0.7 Kg/ha - Apply it in the first damage		
Potatoes	Late blight, Phytophthora parasitica	Spraying 2.25~3kg/ha mixed with 750~900 L water			
Pineapples	Heart rot and root rot caused by Phytophthora sp.			High volume application 2 L in 2000 -5000L of water /ha	Thoroughly spray pineapple foliage and surrounding soil. For the first treatment, hand drenching is preferred to spraying. Use 2000L/ha for young plants, increasing up to 5000L/ha for large plants.
Water melon, tomatoes, vegetable	White mildew (Footrot- <i>Pythium</i>)		- 25-30g/tank of 16 l (foliar and stem spray), 2.5 tanks/1,000m ² - 0.5-0.7 Kg/ha		- Apply it in the first damage - After first application 7-10 days, apply this pesticide again.
Pepper	Rot of rubber skin, resin flowing, a crack of resin flowing line		25-30g/tank of 16 l, 0.5-0.7 Kg/ha		Apply it in the first damage - After first application 7-10 days, apply this pesticide again.
Rubber	Rot of rubber skin, resin flowing, a crack of resin flowing line		- 25-30g/tank of 16 l (foliar spray) , 0.5-0.7 Kg/ha - 30g/ 1liter of water for painting on the line of resin.		Before painting, disease place must be well cleaned. - Paint on skin for 3 times per 5-7 days - Apply it in the first damage
Durian	Rot of durian skin, dried stem		- 25-30g/tank of 16 l (foliar spray), 0.5-0.7 Kg/ha - 30g/ 1liter of water for painting on the skin of plant and stem		Apply it in the first damage
Orange	Resin flowing				
Peanut	Black spot on leaves		- 30-40g/tank of 16 l (foliar and stem spray), 2.5 tanks/1,000m ² - 0.5-0.7 Kg/ha		- Apply it in the first damage - After first application 7-10 days, apply this pesticide again.