Artemide™

INSECTICIDE SEED TREATMENT

A new solution for insecticide seed treatment

CORTEVA™
agriscience

OVERVIEW

Artemide is an new solution for insecticide seed treatment for corn and sunflower. Its unique micro-capsule suspension formulation, was developed specifically for seed treatment.

Artemide™ at a glance

Target crops	Corn and Sunflower
Target Pests	Wireworms *(Agriotes spp.)* CRW larvae *(Diabrotica virgifera virgifera)*
Active ingredient	Lambda-cyhalothrin
Dose Rate	From 2.0 - 3.6 mL per 1000 seeds
Formulation	Micro-encapsulated CS
IRAC Froup	3A Pyrethroids
Mode of Action	Interferes with the central nervous system, leading to paralysis and subsequent death of the insect

Key Advantages

- High selectivity in corn & sunflowers
- Good efficacy on wireworms
- Registration on Sunflowers

Discover more now at corteva.com

Mode of action

Lambda-cyhalothrin, the active ingredient in Artemide™, is a pyrethroid insecticide. This synthetic insecticide mimics the naturally found insecticide pyrethrin. It disrupts the operation of the nervous system by affecting the sodium channels which play a critical role in nerve function. This prevents muscles from contracting, stops insects from feeding and eventual death.

Thanks to this Mode of Action, ArtemideTM provides fast protection from feeding damage.

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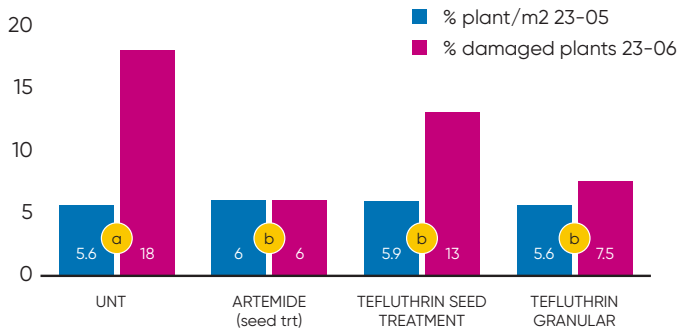
CORN

ARTEMIDE FIELD TRIAL

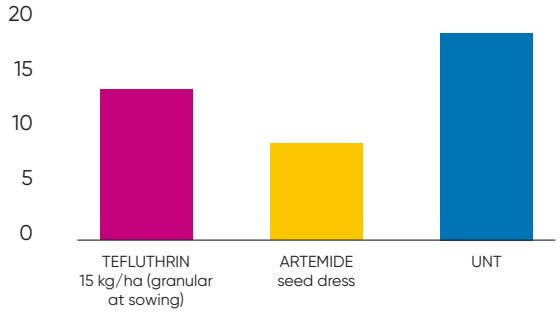
Wireworms in corn, Italy 2015 - Trial 15-01 Repros



Source: SIPCAM R&D

Wireworms in Sunflower, Italy 2016

% DAMAGED PLANTS BY AGRIOTES SPP. SUNFLOWER

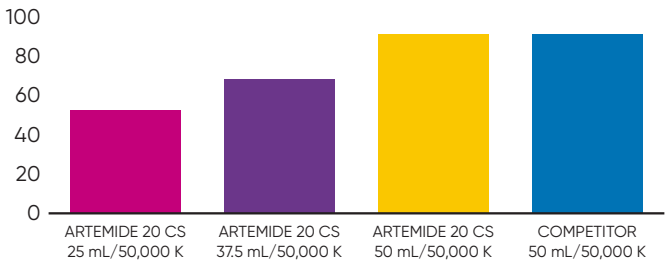


Source: SIPCAM R&D

SUNFLOWER

ARTEMIDE VS TEFLUTHRIN – TURKEY 2020

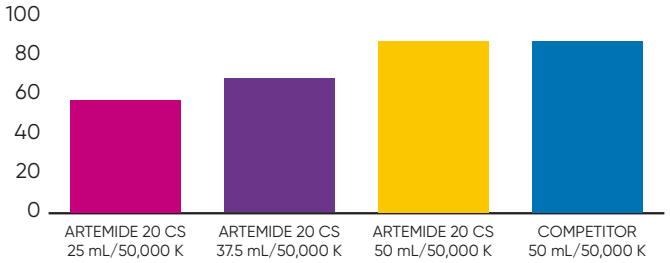
Corn, Wireworm incidence in UNTREATED = 126/plot (36 m row).



Source: CORTEVA AGRISCIENCE R&D

Sunflower, Wireworm incidence in UNTREATED = 127.4/plot (36 m row).

% WW CONTROL IN SUNFLOWER (N=4), 3 WAP, TURKEY-2020
% WW Control (n=4)



Source: CORTEVA AGRISCIENCE R&D

Field Trials Demonstrate

- ARTEMIDE performance at 60 g ai/ha on Agriotes is similar to that of the standard.
- ARTEMIDE under moderate pest pressure significantly reduces the level of damaged plants and increases yield vs Untreated.
- ARTEMIDE applied alone as well as in mixtures with other seed treatment products or/and in programs with soil granular insecticides proven to be safe to corn and sunflower crops.
- ARTEMIDE showed use rates flexibility and provided similar level of efficacy even when tested at lower than 60 g ai/ha rates.

ARTEMIDE SELECTIVITY

Seed facility, Lodi IT

7 days after sowing, climatic cell at 25°C, 90% RH

*Standard Fungicide: Metalaxyl M+Fludioxonil

EFFICACY

Efficacy of ARTEMIDE (Lambda Cyhalothrin 222 g/L) as Seed Treatment, against Wireworms (Agriotes sp.) on CORN.

TRT	PRODUCT/ FORMULATION	RATE OF PRODUCT ML/25,000 SEEDS	RATE OF PRODUCT ML/80,000 SEEDS	DOSAGE A.I. IN G/25,000 SEEDS	DOSAGE A.I. IN G/HA	SEEDING RATE SEEDS/HA
1	Untreated	-	-	-	-	75,000
2	Artemide	22.5	72	5	15	75,000
3	Artemide	60	192	13.3	40	75,000
4	Artemide	90	288	20	60	75,000
5	Artemide	60	192	13.3	48	90,000
6	Artemide	90	288	20	48	60,000
7	TEFLUTHRIN	25	80	5	15	75,000

All seeds were treated with Standard Fungicide (Fludioxonil + Metalayxyl-M) at rate of 25 mL/100,000 seeds = 6.25 mL/ 25,000 seeds in order to keep the crop protected from soil diseases.

Efficacy of ARTEMIDE (Lambda Cyhalothrin 222 g/L) as Seed Treatment, against Wireworms (Agriotes sp.) on CORN.

TRT	PRODUCT/ FORMULATION	RATE OF PRODUCT ML/1,000 SEEDS	RATE OF PRODUCT/ HA	DOSAGE A.I. ING/1,000 SEEDS	APPLICATION TIMING	SEEDING RATE SEEDS/HA
1	Untreated	-	-	-	-	75,000
2	Artemide	2.0	-	0.444	A	75,000
3	Artemide	3.0	-	0.666	A	75,000
4	Artemide	3.6	-	0.799	A	65,000
5	BELEM 0.8 MG	-	12.0 kg	-	A	75,000

All seeds were treated with Metalaxyl-M 340 g/L at rate of 300 mL/100 kg seeds Treatment 1 (untreated), were seeds just treated with fungicide Metalaxyl-M.
Treatment 2 to Treatment 4 were dressed seeds with Artemide.
Seeds from Treatment 5, were applied with BELEM 0.8 MG in furrow at drilling.