



# Echelon Duo Advanced

Herbicide + Insecticide & Fertiliser 15:1:17



**indigo**  
SPECIALTY PRODUCTS





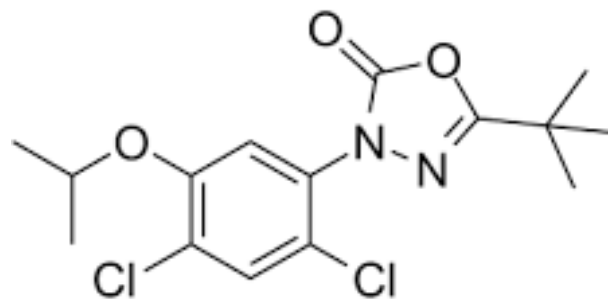
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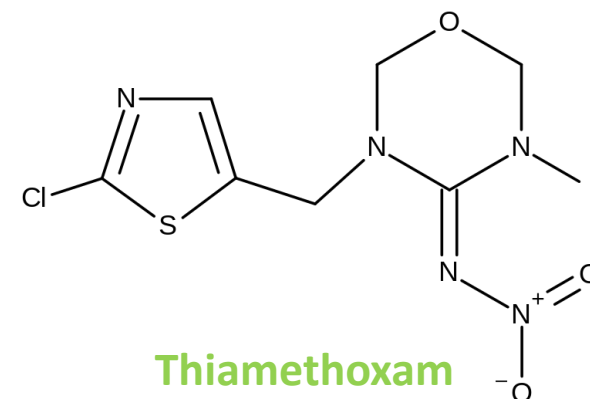
Turf Nutrition

+

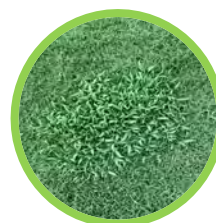


Oxadiazon

+



Thiamethoxam





## Echelon Duo Advanced

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# Key Benefits

- All in one solution. Pre-emergent herbicide, residual insecticide and turf fertiliser in one pass. Saves application time and associated costs.
- Season long prevention for a range of weeds and insects. Protection for 90 days.
- The Pre-emergent herbicide, Oxadiazon is a shoot absorbed pre-emergent herbicide, having the least amount of impact on the root system.
- The Residual Insecticide Thiamethoxam provides improved bioavailability in soil at lower soil moisture levels – ensuring better movement and coverage as well as quicker performance over several other residual products.
- Convenient and easy to apply through granular fertiliser spreaders.
- Safer to handle and apply due to the low active ingredient concentrations.
- Promotes a healthy turf response which increases competition from weeds and recovery from insect attack.
- Available in both 5kg and 20kg pack sizes.





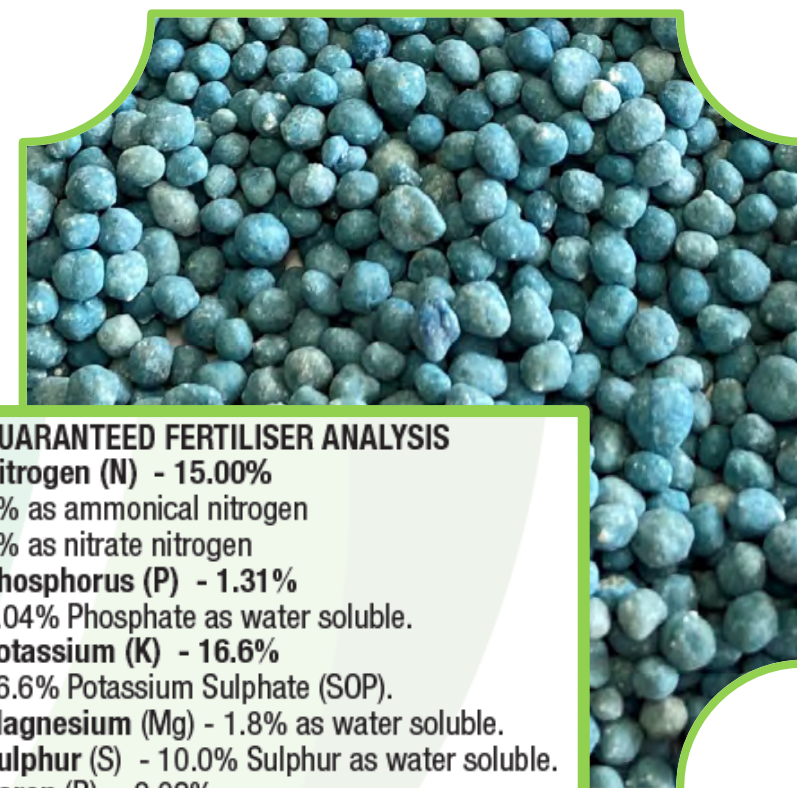
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# Compound Fertiliser Technology

- 300SGN (3mm) dust free, homogenous granular fertiliser.
- Uniform nutrient distribution resulting in sustained turf growth for a 4-8 week period.
- The fertiliser granule has a balanced Nitrogen (15%) to Potassium (17%) fertiliser ratio.
- Also contains Phosphorus (1.6%) and a range of trace elements including Magnesium (1.8%), Sulphur (10%), Boron (0.02%), Iron (0.06%) and Zinc (0.01%).



### GUARANTEED FERTILISER ANALYSIS

**Nitrogen (N) - 15.00%**

8% as ammonical nitrogen

7% as nitrate nitrogen

**Phosphorus (P) - 1.31%**

1.04% Phosphate as water soluble.

**Potassium (K) - 16.6%**

16.6% Potassium Sulphate (SOP).

**Magnesium (Mg) - 1.8% as water soluble.**

**Sulphur (S) - 10.0% Sulphur as water soluble.**

**Boron (B) - 0.02%**

**Iron (Fe) - 0.06%**

**Zinc (Zn) - 0.01%**





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# Oxadiazon

- Oxadiazon is a pre-emergent herbicide.
- Offers excellent residual performance on key turf weeds in all turf situations.
- Oxadiazon has a unique mode of action (Group G) involving shoot absorption rather than root uptake.
- It interrupts chlorophyll production (a key component of photosynthesis) in the susceptible weed, destroying the new leaves of weed seedlings germinating in the treated soil.
- As chlorophyll is only in plant leaves, oxadiazon herbicide cannot impact on the root system of the desirable turf species.

GROUP

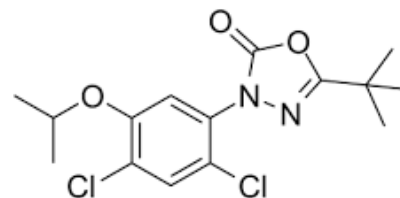
**G**

HERBICIDE



Oxadiazon Treated

Pendimethalin  
Treated



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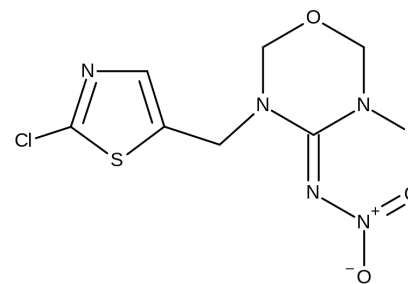


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## Thiamethoxam

- Thiamethoxam is a systemic insecticide.
- Thiamethoxam is readily taken up by the foliage and roots and further distributed acropetally (upwards in the plant).
- Target insects can be controlled by contact action in the soil or via stomach action by ingestion of the active ingredient when feeding on the treated plant material.
- Thiamethoxam works by blocking nicotinic acetylcholine receptors, preventing acetylcholine from transmitting impulses between nerves, resulting in the target insect's paralysis and eventual death.
- Upon ingestion, the target insect stops feeding quickly, limiting further plant attack.



GROUP

**4A**

INSECTICIDE

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Echelon Duo Advanced – Use Rates & Label Recommendations				
SITUATION	TARGET	TURF SPECIES	RATE	CRITICAL COMMENTS
Warm season turfgrass areas, including fairways, golf tees, municipal sports fields, industrial and commercial lawns	Pre-emergent control of Summergrass ( <i>Digitaria ciliaris</i> ), Crowsfoot Grass ( <i>Eleusine indica</i> )	Kikuyu ( <i>Pennisetum clandestinum</i> ), Buffalo Grass ( <i>Stenotaphrum secundatum</i> ),	300 kg/ha (3 kg/100 m <sup>2</sup> )	<p>The product is ready to apply. No mixing or dilution is required. Apply product evenly to dry foliage and bare areas using a granular spreader able to give even coverage. Application must be made before weeds have begun to germinate. Established weeds will not be controlled. After application water in with at least 10 mm of sprinkler irrigation. Control of germinating weed seedlings can be expected for up to 10 weeks after application depending upon temperature, rainfall, soil type and other factors. If longer control is required a repeat application should be made 7-10 weeks after initial application.</p> <p>DO NOT mow treated area until product has been watered in and turf foliage has dried. Avoid application when daytime temperatures are consistently above 32°C. This product is not recommended for use on putting greens, low cut tees or bowling greens.</p> <p>DO NOT apply on turf containing Carpet Grass (<i>Axonopus</i> spp.), Centipede Grass (<i>Eremochloa ophiuroides</i>) and Dichondra unless some damage is acceptable.</p>
	Pre-emergent control of Winter Grass ( <i>Poa annua</i> ), Creeping Oxalis ( <i>Oxalis corniculata</i> )	Common Couch ( <i>Cynodon dactylon</i> ), Hybrid Couch grass (Not Santa Ana) ( <i>Cynodon dactylon</i> , <i>C. transvaalensis</i> )	400 kg/ha (4 kg/100 m <sup>2</sup> )	
		Saltwater couch ( <i>Paspalum vaginatum</i> ), Queensland Blue Couch ( <i>Digitaria didactyla</i> ), Bahia grass ( <i>Paspalum notatum</i> ), Zoysia grass ( <i>Zoysia matrella</i> )		
	First instar larvae of African Black Beetle ( <i>Heteronychus arator</i> )		300 kg/ha (3 kg/100 m <sup>2</sup> )	<p>Apply prior to or at peak egg hatch, mid spring to early summer, or when small larvae are present. Irrigate with 6 to 12 mm of water commencing within 1 hour of application.</p>
	First and second instar larvae of Argentinian Scarab ( <i>Cyclocephala signaticollis</i> )			
	Larvae of Billbug ( <i>Sphenophorus brunnipennis</i> )			<p>Monitor adult activity through late spring and early summer. Spray when numbers peak or when small larvae (4 mm) are found in the thatch or surface soil. Early application is essential to minimise grass damage due to feeding. Irrigate with 6 to 12 mm of water commencing within 1 hour of application.</p>



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## Use Rates and Label Recommendations







# Spreader Settings

Suggested Spreader Settings				
The suggested spreader settings are not intended to replace calibration. Calibrate your spreader before applying product.				
Spreader	Ground Speed	Width of coverage	Spreader Settings	
			300 kg/ha	400 kg/ha
Scotts AccuPro 2000, SR-2000 (cone 4)	4.8 km/hr	4.0 m	O 1/2	Q
Scotts R-8, R-8A (cone 4)	4.8 km/hr	4.0 m	O	P 1/2
Spyker 288 Super	4.8 km/hr	3.0 m	3.9	4.2
Vicon (03 Series - Standard Spout)	7.3 km/hr	11.0 m	37	44







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## Maximising Performance

Avoid application when the turf foliage is wet. Apply to a dry leaf to reduce potential of plant damage.

Do not use on putting greens, low cut tees or bowling greens.

Avoid application to newly seeded turf areas. The pre-emergent may impact on seed germination.

Avoid application to fairways / turf surfaces adjacent to natural water bodies.

Avoid application if heavy rains or storms are forecast within 3 days.

Apply using a properly calibrated granular applicator which will apply the granules in a uniform pattern. Uniform application is essential for satisfactory weed control. Spreader settings for Scott's Accupro, Scott's R8A, Spyker and Vicon are outlined on the label. As each individual spreader varies, therefore use these settings as a guide only.

Ensure turf area is free of leaves and other debris, mowing if necessary so that the granules reach the soil surface. Delay reseeding of Ryegrass or Bentgrass into treated areas for 4-5 months (Ryegrass 4 months & Bentgrass 5 months).

Avoid mowing treated area until product has been watered in and turf foliage has dried.

After application water in with at least 10 mm of sprinkler irrigation. Control of germinating weed seedlings can be expected for up to 10 weeks after application depending upon temperature, rainfall, soil type and other factors. If longer control is required a repeat application should be made 7-10 weeks after initial application.

Avoid application when daytime temperatures are consistently above 32°C.

Do not apply on turf containing Carpet Grass (*Axonopus* spp.), Centipede Grass (*Eremochloa ophiuroides*) and Dichondra unless some damage is acceptable.



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## Packaging



Available in 5kg and 20kg Packaging.

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THANK YOU

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