

Tech Shares

R-50 Optimizer™ Technology Drives Gemini® Granular

Gemini® Granular Pre-emergent herbicide, like Gemini® 3.75C, is powered by Isoxaben combined with Proflumicafene but in a granular formulation. Gemini® Granular is the only pre-emergent herbicide that contains ICL's patent pending R-50 Optimizer™ Technology.

R-50 Optimizer™ Technology

R-50 Optimizer™ Technology is a transformational efficiency enhancer that gives Gemini® Granular the strength to control weeds with half the active ingredient per unit area. This powerful technology lets Gemini® Granular users make more applications per crop cycle without reaching established AI (active ingredient) limits. The chart to the right compares Gemini® Granular active ingredient rates per acre to 3 other popular granular herbicides.

R-50 Optimizer™ Technology Enhances Performance in Three Ways

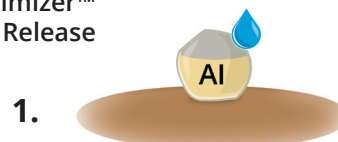
1. Active Ingredient Movement (dissociation) from carrier: active ingredients must move into the soil or growing media to control weed seedlings prior to germination. R-50 Optimizer™ Technology ensures extraordinary dissociation from the carrier so the herbicide works.
2. R-50 Optimizer™ continues working after initial activation. Even though much of the active ingredient is released with initial water application, R-50 Optimizer™ ensures that any remaining active is released with subsequent water application.
3. R-50 Optimizer™ Technology enhances lateral movement resulting in a more uniform herbicide barrier.

Comparing 3 popular granular pre-emergent herbicide active ingredient rates per acre to Gemini® Granular with R-50 Optimizer™ Technology rates. Label approved rates are shaded yellow.

Brand	Active Ingredient	Rate/Acre>	100#/acre	150#/acre	200#/acre
		% A.I.	Grams a.i. per 1000ft²		
Gemini® Granular	Isoxaben	0.25	2.6	3.9	5.2
	Proflumicafene	0.40	4.2	6.3	8.3
OH2	Oxyflourfen	2.00	20.9	*	*
	Pendimethalin	1.00	10.4	*	*
Competitor 1	Isoxaben	0.50	5.2	7.8	10.4
	Trifluralin	2.00	20.9	31.3	41.7
Competitor 2	Dimethenamid P	0.75	7.8	11.7	15.6
	Pendimethalin	1.00	10.4	15.6	20.9

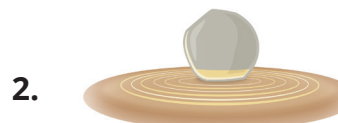
Yellow Shaded Cells Indicate Label rates.

Gemini® Granular with R-50 Optimizer™ Mode of Release



1.

Once applied and watered, R-50 Optimizer™ moves more of the active ingredient (AI) off of the carrier.



2.

The R-50 Optimizer™ also aids in spreading the active ingredients out further to create a much wider barrier of protection

