# **ADJUVANT RATE GUIDE**



Adjuvant Rate % v/v	L per 40 acres (5 GPA)	L per 1000 US gallons	L per 800 US gallons	3.78 liter jug treats # US gallons	10 litre jug treats # US gallons
0.05%	0.40	1.87	1.50	2000	5290
0.10%	0.80	3.75	3.00	1000	2646
0.125%	0.95	4.68	3.80	800	2116
0.25%	1.90	9.375	7.60	400	1058
0.50%	3.80	18.75	15.10	200	529
1.00	7.60	37.5	30.30	100	265





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Use rate 0.25% v/v for nonionic penetrating surfactant, drift reduction and deposition aid. Use 0.05% v/v rate for pH reduction. Target chemistries include glyphosate, dicamba, 2,4-D, Reglone® and insecticides.



Low-foaming, 100% active, nonionic, pH neutral, penetrating surfactant. Use rate of 0.25% v/v with sulfonylurea (SU) herbicides or other pesticides requiring a nonionic surfactant.



Methylated seed oil surfactant blend providing drift reduction, enhanced penetration and droplet adhesion. Use where a crop oil concentrate or surfactant blend is required at 0.50% to 1.00% v/v.



Utility spray modifier designed specifically to enhance deposition, control drift and defoam spray solutions. Use rate of 0.125% v/v for all applications.



ALL CLEAR® removes difficult-to-clean crop protection products like sulfonylurea herbicides and sticky formulations without ammonia. Use 0.25% use rate for general cleaning; use 0.5% v/v for decontamination.



Concentrated water conditioning agent used for hard water conditions as a superior substitute to ammonium sulfate (AMS). Compatible with all herbicides including all formulations of glyphosate. Use rate of 0.25 to 0.50% v/v depending on water hardness.

# LI 700 TECHNICAL INFORMATION



Penetrant, Acidifier Deposition Aid & Drift Control Agent with Defoamer Component

LI 700® with Leci-Tech® is a non-ionic penetrating surfactant that reduces off-target spray drift and reduces spray water pH. Unique formulation technology and quality ingredients differentiate LI 700 with Leci-Tech in the market.

### Product Benefits:

- TO: Drift reduction with right-sized droplets
- ON: Droplet retention by adhesion and spreading
- IN: Increased penetration without cuticle disruption
- Acidification properties reducing spray solution pH, preventing pesticide degradation and maximizing performance
- LI 700 with Leci-Tech is a low-foaming surfactant and will not cause foam problems in the spray tank

### Rates:

Add LI 700 to the spray tank at a rate of 0.25% to 0.5% v/v (2.5L to 5L per 1000L of spray solution)

## Target Chemistries:

• Weak acid herbicides (i.e. glyphosate, 2,4-D, dicamba, etc.), insecticides, defoliants and nutritionals



Demonstrates herbicide on velvetleaf up to 72 hours after treatment (HAT). The first 3 pictures are herbicide alone. The last 3 pictures have a Leci-Tech adjuvant added.

# LIBERATE TECHNICAL INFORMATION





### 100% Active, Non-Ionic Surfactant, Defoamer

LIBERATE® is an uptake enhancing surfactant blend/penetrant. Liberate is designed for use with pesticides that recommend a non-ionic surfactant, and works especially well with systemic chemistry, reducing driftable fines. Liberate provides uniform droplets allowing enhanced coverage and excellent control. Additional defoaming properties and a net neutral pH effect make Liberate very user-friendly.

#### Product Benefits:

- TO: Drift reduction with right-sized droplets
- ON: Droplet retention by adhesion and spreading
- IN: Increased penetration without cuticle disruption
- Neutral pH ideally used with sulfonyl urea herbicides and other pesticides that require a pH 7 (neutral) or higher
- Odorless and contains an antifoam/defoamer component and will not cause foaming problems in the spray tank



# Rates:

Add Liberate to the spray tank at a rate of 0.1% to 0.5% v/v (1L to 5L per 1000L of spray solution)

\*\*Note: Do NOT use on grape foliage

# Target Chemistries:

• Sulfonyl urea (SU) herbicides, fungicides and those chemistries requiring a neutral pH



Demonstrates the effect of Leci-Tech chemistry on penetration and translocation of glyphosate into and throughout the Common Lambsquarters plant.

# VALID TECHNICAL INFORMATION





Deposition Aid, Drift Reduction Agent, Antifoaming/Defoaming Agent

VALID® is a non-ionic and shear tolerant drift control agent containing suspended antifoam-defoamer. Valid may be used as a drift control adjuvant to enhance deposition, retention and control spray droplet size of agricultural and industrial chemicals.

#### Product Benefits:

- Drift reduction with performance-sized droplets
- Droplet retention by adhesion and spreading
- Contains an antifoam/defoam system
- Low use rates make VALID cost-effective

#### Rates:

• Apply 1 jug of Valid to 800 US gallons or 3028 liters of spray solution.

## Target Chemistries:

• With any spray solutions where a surfactant is not required, and drift control is desired.



Demonstrates in simulated wind, coarse droplets of; water alone (left), water with glyphosate (middle), and water with glyphosate and Leci-Tech (right).

# MSO CONCENTRATE TECHNICAL INFORMATION





## Modified Vegetable Oil and Surfactant Blend

MSO CONCENTRATE with LECI-TECH® is a methylated seed oil containing the highest quality components available. The premium emulsifiers, along with LECI-TECH chemistry, will provide uniform mixing for excellent performance as well as drift reduction, enhanced penetration and droplet adhesion. MSO CONCENTRATE WITH LECI-TECH is designed for use with post-emergent herbicides and has consistently demonstrated increased penetration over conventional crop oil concentrates.

### Product Benefits:

- TO: Drift reduction with right-sized droplets
- ON: Droplet retention by adhesion and spreading
- IN: Increased penetration without cuticle disruption
- MSO CONCENTRATE with LECI-TECH provides increased plant uptake vs. standard methylated seed oil formulations
- MSO CONCENTRATE with LECI-TECH provides improved crop safety vs. standard methylated seed oil formulations

### <u>Rates:</u>

• Apply 1% v/v or 10L/1000L of spray mixture

# Target Chemistries:

• Chemistry calling for a Methylated Seed Oil



Increased penetration without cuticle disruption



Time elapsed: 3 minutes