

# **Micro-Rate Broadcast Rates and Recommendations:**

# This is not a substitute for reading the product labels

<u>When using the Micro-rate Program</u>: Betanex<sup>\*</sup>, Betamix<sup>\*</sup> or Progress<sup>\*</sup>, UpBeet, and Stinger<sup>\*</sup>, Methylated Seed Oil (MSO) and/or Basic Blend adjuvant should be added into every application for the best weed control. Addition of the grass control product is optional but helps to reduce precipitate and it will provide control of annual grasses. Applications should be made in 7 day intervals for best control, starting with cotyledon stage sugarbeet. A 5-day application interval may be necessary if weather conditions are favorable for weed growth. The Micro-Rate system works because of the addition of MSO into the tank-mix.

MSO rate = 1 pt/A minimum to 2 pt/A maximum. The Micro-Rate system works because of the addition of MSO into the tank-mix.

**BBA rate** = 1 pt/A minimum to 2 pt/A maximum. Basic Blend Adjuvant (BBA) is added to the tank-mix to raise pH of water and to help prevent precipitation of products in suspension.

	Cotyledon to 4-Leaf Sugarbeet (1)	4-Leaf or Greater Sugarbeet	4-Leaf or Greater Sugarbeet (2)
Progress	5.7 - 8.7 fl oz/A	8.7 - 11.6 fl oz/A	11.6 - 16 fl oz/A
Betamix / Betanex	8 - 12 fl oz/A	12 - 16 fl oz/A	16 - 22 fl oz/A

#### Watch-outs

- (1) Consider caution when using higher rates and when sugarbeets are in the early 2-leaf stage of growth because injury may occur.
- (2) When the air temperature is, or likely to be, above 80 degrees F on the day of spraying, application should be made in the late afternoon or when temperature is decreasing.

# Additional herbicides to be added to the Micro-Rate

Nortron* at 2-4 fl oz/A	<u>Outlook*</u> at 18-21 fl oz/A	SelectMax at 3 fl oz/A
Stinger* at 1.3-2.6* fl oz/A	Dual Magnum* at 1.3-1.7 pt/A	Warrant at 1.3 to 2 qt/A
UpBeet at 1/8 oz/A	Select* at 2 fl oz /A	Assure II at 4 fl oz/A

\*Stinger\* - can be used from cotyledon to 8-leaf sugarbeet stage.

\*Stinger\* Rate - can be increased to 2.6 fl oz/Acre with an increased risk of sugarbeet injury to help control lanceleaf sage.

<u>Nortron\*</u> - adding Nortron can enhance weed control on kochia, redroot pigweed, and common lambsquarters. A maximum of 12 fl oz/A of Nortron\* can be POST applied each season.

Outlook\* - Lay-by application is applied after beets have 2 fully expanded leaves and up to the 8-leaf stage. Outlook requires 1/4" of rainfall to be activated. Light harrow or rotary hoe can enhance performance if there is no precipitation. It is not recommended to replant sugarbeet after Outlook has been applied. If following applications are Conventional Rates use "With Soil Herbicide" rates.

**Dual Magnum\*** - Lay-by application, should not be applied before the sugarbeet reaches 2 true leaves to reduce injury. Dual requires a 1/2" of rainfall to be activated. Light harrow or rotary hoe can enhance performance if no rain. If following applications are Conventional Rates use "With Soil Herbicide" rates.

<u>Warrant</u> – Lay-by application, apply after beets have 2 fully expanded leaves and up to the 8-leaf stage. Warrant requires a 1/2" rainfall to be activated. Warrant is an encapsulated formulation that requires activating rainfall and time for the capsules to become active. Light harrow or rotary hoe can enhance performance if there is no precipitation. It is not recommended to replant sugarbeet after Warrant has been applied.

# Micro-rate Mixing Instructions

- 1. Fill spray tank 1/3 full with clean water, warmed water is best
- 2. Slurry UpBeet in warm water
- 3. Add Basic Blend Adjuvant (Quad 7, Linkage, Newtone, etc.). Only add enough for amount of water in tank at this time
- 4. Add slurried UpBeet to tank
- 5. Add Nortron\* at 4 fl oz/acre (optional)
- 6. Fill tank 2/3 full of water
- 7. Add Betanex\*, Betamix\*, or Progress\*
- 8. Add Outlook, Dual Magnum or Warrant
- 9. Add Stinger\*
- 10. Add the grass herbicide, they generally help reduce precipitate
- 11. Fill spray tank with water and the rest of the Basic Blend adjuvant
- **12.** When tank is nearly full add the methylated seed oil
- 13. Gentle agitation will result in less precipitate than strong agitation. Spray tank until empty as soon as possible
- \* Or generic equivalent

	Generic Betamix products are:	Sugarbeet Mix	&	Phen-Des 8+8	
	Generic Progress Product is:	BnB Plus			





Note on Post Quadris Application: Quadris SHOULD NOT be tank-mixed with the Micro-Rate or applied right before or after a Micro-Rate application as sugarbeet injury will occur. Optimal timing is between each Micro-Rate application (3 days after or 3 days before).



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# \* With conventional rates do not begin spraying until late afternoon and do not use MSO or other adjuvant.

\* Note: If grass herbicides are applied 1st, wait 24 hrs to apply broadleaf herbicide to avoid loss of grass control. If broadleaf herbicides are applied 1st, wait 3-5 days to apply grass herbicides to avoid loss of grass control. SelectMax can be tank mixed with broadleaf herbicides.

#### Conventional Betamix\* & Betanex\* Broadcast Rate

No Soil Herbicide			With Soil Herbicide	
Sugar Beet stage	Low Pressure (<100psi)	High Pressure or Aerial	Low Pressure (<100psi)	High Pressure or Aerial
Cotyledon - 2 leaf	1.5 pt/A	1.0 pt/A	1.0 pt/A	0.75 pt/A
2 leaf	2.0 pt/A	1.5 pt/A	1.5 pt/A	1.0 pt/A
4 leaf	3.0 pt/A	2.5 pt/A	2.0 pt/A	1.5 pt/A
6-8 leaf	4.6 pt/A	4.6 pt/A	3.0 pt/A	3.0 pt/A

#### **Conventional Progress\* Broadcast Rate**

No Soil Herbicide			With Soil Herbicide	
Sugar Beet stage	Low Pressure (<100psi)	High Pressure or Aerial	Low Pressure (<100psi)	High Pressure or Aerial
Cotyledon - 2 leaf	1.1 pt/A	0.7 pt/A	0.7 pt/A	0.5 pt/A
2 leaf	1.5 pt/A	1.1 pt/A	1.1 pt/A	0.7 pt/A
4 leaf	2.2 pt/A	1.8 pt/A	1.5 pt/A	1.1 pt/A
6-8 leaf	3.3 pt/A	3.3 pt/A	2.2 pt/A	2.2 pt/A

# Lay-by Outlook\*, Dual Magnum\* and Warrant Rates

Outlook\*: 18 - 21 fl oz/A on sugarbeet at 2-leaf stage or greater. Requires 1/4" of rainfall for activation. Light harrow or rotary hoe can enhance performance. It is not recommended to replant sugarbeet after Outlook application. If following applications are Conventional Rates, use "With Soil Herbicide" rates.

- **Dual Magnum\*:** 1.33-1.67 pt/A on sugarbeet at 2 leaf stage or larger. Requires a 1/2" rainfall for activation. Light harrow or rotary hoe can enhance performance. If following applications are Conventional Rates use "With Soil Herbicide" rates.
- Warrant: 1.25 2 q/A on sugarbeet at the 2-If stage or greater. Requires 1/2" rainfall for activation. Light harrow or rotary hoe can enhance performance. It is not recommended to replant sugarbeet after Warrant application. If following applications are Conventional Rates, use "With Soil Herbicide" rates.

# **Conventional Stinger\* and UpBeet rates**

Stinger\*:2 - 4 fl oz/A on sugarbeet from cotyledon - 8 leaf stageUpBeet:1/4 to 1 oz/A



5. Add Outlook\*, Dual Magnum\* or Warrant to tank.

7. Spray tank empty as soon as possible after mixing.

6. Finish filling tank with water.

# Grass Control: In Conventional applications always apply grass herbicide separately (Exception see SelectMax).

SelectMax\*: Can be tank-mixed at 9 fl oz/A with conventional applications of Betanex, Betamix, & Progress.

Stand alone app: 9 fl oz/A on 4-6" grasses. Apply with AMS @ 2 lb/A and NIS at 0.25% v/v (preferred) or COC/MSO @ 1% v/v. 12 fl oz/A on 6-8" grasses. Apply with AMS at 2 lb/A and NIS at 0.25% v/v.

Assure II: 8 fl oz/A for wild oat, foxtails spp., volunteer cereals, and 10 fl oz/A for quackgrass. Apply with COC at 1% v/v (but not less than 1.25 pt/A)

- Select\*: 6-8 fl oz/A for wild oat, foxtail spp., volunteer cereals, and 8-16 fl oz/A on guackgrass. Apply with Crop Oil Concentrate (see Assure II)
- Poast: 0.5-1.5 pt/A for wild oat, foxtail spp., and volunteer cereals. Apply with COC and AMS or 28% liquid nitrogen.

# **Conventional Mixing order**

- 1. Fill spray tank 1/3 full with clean water, warmed water is best.
- 2. Slurry UpBeet in warm water 1st then add UpBeet to tank.
- 3. Fill tank 2/3 full of water.
- 4. Add Betanex\*, Betamix\*, or Progress\*, and Stinger\* to tank.

\* or generic equivalent

Generic Betamix products are:	Sugarbeet Mix & Phen-Des 8+8
Generic Progress Product is:	BnB Plus

Note on Post Quadris Application: Quadris SHOULD NOT be tank-mixed with the Conventional application or applied right before or after a Conventional application as sugarbeet injury will occur. Optimal timing is 3 days before or 3 days after application.