

# **Spin-Aid in Sugarbeet**

#### **Phenmedipham Returns**

Phenmedipham is the active ingredient in Spin-Aid (manufactured by Belchim USA). It is a postemergence contact herbicide classified as a photosystem II inhibitor (Group 5) - it disrupts the photosynthetic process of the susceptible plant, essentially causing the plant to starve to death. Phenmedipham was previously registered for us in sugarbeet as Betanal in the 1970s, and as part of the herbicide, Betamix, in the 1980s. Betamix was a pre-mix of phenmedipham and desmedipham. In 2014, registration for Betamix was cancelled. Since then, stocks of remaining Betamix have dwindled significantly.

#### Common Lambsquarters control: 12 oz/A Spin-Aid + 6 fl oz/acre Etho // 20 oz/A Spin-Aid + 6 oz/A Etho // 28 oz/A Spin-Aid



Image taken 10 days after last application

#### 24(c) Local Needs Label

The Environmental Protection Agency approved a 24(c) local needs label for Spin-Aid herbicide on sugarbeet in Minnesota and North Dakota for the 2023-2027 growing seasons. This label offers Minn-Dak growers an excellent postemergence weed control option for kochia and common lambsquarters.



Dr. Tom Peters, NDSU Extension Sugarbeet Agronomist/Weed Control Specialist, began conducting experiments in 2022 after Belchim USA acquired the registration of phenmedipham. All data presented in this issue was provided by Dr. Peters and his team. We thank him <u>tremendously</u> for his continued dedication to our industry.

## How to Apply

- 2-leaf stage minimum
- 20 GPA 30 GPA
- Second application is required
  - 5 7 days after first application
- Maximum of <u>3</u> applications
- Ethofumesate improves control
- May be tank-mixed with glyphosate

- AMS @ 8.5 lb/100 gal water
- HSMOC @ 1-1.5 pt/A or NIS @ 0.25% v/v
- Target small weeds
  - "dime" to "quarter" size Kochia
- Rainfast = 6 hours
- PHI = 75 days
- <u>NO</u> aerial application

## **Tank Mix Partners**

- All brands of ethofumesate are allowed
- Roundup PowerMax3 was used in all trials conducted by Dr. Peters, but generic glyphosate is allowed
- HSMOC was used in all trials conducted by Dr. Peters and is preferred
- NIS is allowed
- **<u>Do not</u>** mix MSO with Roundup PowerMax3

- Spin-Aid is an <u>E</u>mulsifiable <u>C</u>oncentrate, so add to the tank accordingly
  - AMS / Etho / Spin-Aid / Glyphosate / Adjuvant
- Additional products have not been evaluated
- The use of additional products may increase crop injury
- Apply spray solution within 4 hours

Common Lambsquarters Control Program:				
Application #	Sugarbeet Stage	Spin-Aid + Etho + Roundup PowerMax3 (fl oz/A)		
1	2-leaf	12 + 4 + 25		
2	4-leaf	24 + 4 + 25		
OR				
1	4-leaf	24 + 4 + 25		
2	6-leaf	24 + 4 + 25		
*If applying glyphosate, must wait 10 days between applications				

The information provided in this issue is meant to assist your operation in making an effective Spin-Aid application in 2023. Please consult your agriculturist and/or the product label for additional information.

Kochia Control Program:
Dime Size

App. #	Sugarbeet Stage	Spin-Aid + Etho + Roundup PowerMax3 (fl oz/A)			
1	2-leaf	16 + 4 + 25			
2	4-leaf	24 + 4 + 25			
OR					
1	4-leaf	24 + 4 + 25			
2	6-leaf	32 + 4 + 25			

\*If applying glyphosate, must wait 10 days between applications

# Kochia Control Program: Quarter Size

App. #	Sugarbeet Stage	Spin-Aid + Etho + Roundup PowerMax3 (fl oz/A)			
1	2-leaf	16 + 4 + 25			
2	4-leaf	32 + 4 + 25			
OR					
1	4-leaf	32 + 4 + 25			
2	6-leaf	48 + 4 + 25			

*\*If applying glyphosate, must wait 10 days between applications* 



Sugarbeet safety and kochia control were best from repeat Spin-Aid applications. Kochia stops growing, so the sugarbeet crop is able to overtake it.



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