

SEED BULKING (AccuSeed) TRIAL

Objective: Investigate the use of AccuSeed granular elemental sulphur (S) as a seed-bulking agent to assist in reducing canola seeding rates.

Background: One way to increase a crop's ability to fight disease while reducing lodging and overall crop height is to decrease plant population.

Over the years, the agronomy unit of Alberta Agriculture has done preliminary research investigating the possibility of utilizing agronomic rates (10 to 30 lb/ac) of seed-sized elemental S fertilizer to reduce canola seeding rates. By blending seed-sized S with canola seed, seeding can be reduced without compromising an even stand. Many growers use seeding rates of 5 to 7 lb/ac, which often translates to 200 or more plants/m². By harvest, canola stands seldom contain half of this number. **Respectable yields can be obtained from stands as low as 20 plants/m² with proper management.** However, achieving low (below 5 lb/ac) seeding rates with commercial seeding equipment is often difficult.

Methodology: AccuSeed at 10 lb/ac was applied with canola seed at 3 lb/ac and was an additional treatment within the seed priming trial. This treatment was compared with the unprimed plots seeded at 5 lb/ac.

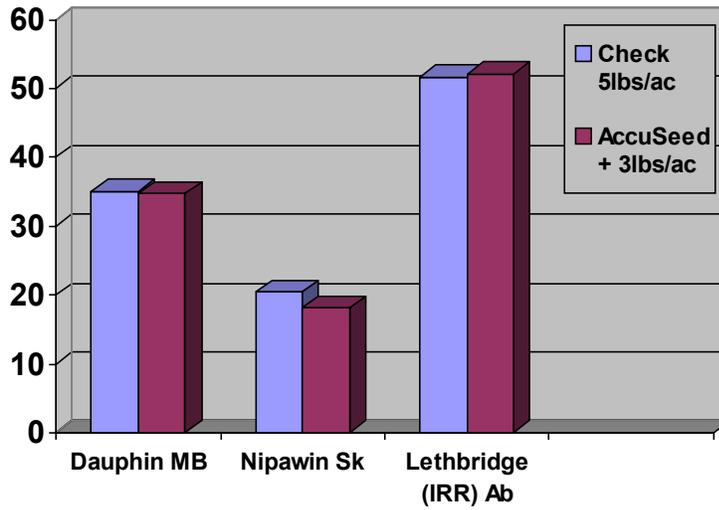
Table 8. Effect of seed bulking on Canola Yield and Contribution Margin

| CPC Location | Dauphin MB | | Nipawin SK | | Lethbridge (Irr) AB | |
|--------------------------------------|------------|-----|------------|-----|---------------------|-----|
| | NYD | CMD | NYD | CMD | NYD | CMD |
| SEED BULKING (ACCUSEED) TRIAL | | | | | | |
| Seed rate @ 3 lb/ac+ AccuSeed | 34.7 | 181 | 18.1 | 32 | 52.1 | 331 |
| Seed rate @ 5 lb/ac (check) | 35.0 | 177 | 20.4 | 55 | 51.6 | 320 |
| LSD | 2.44 | | 3.40 | | 3.12 | |
| CV% | 5.6 | | 14.0 | | 4.5 | |

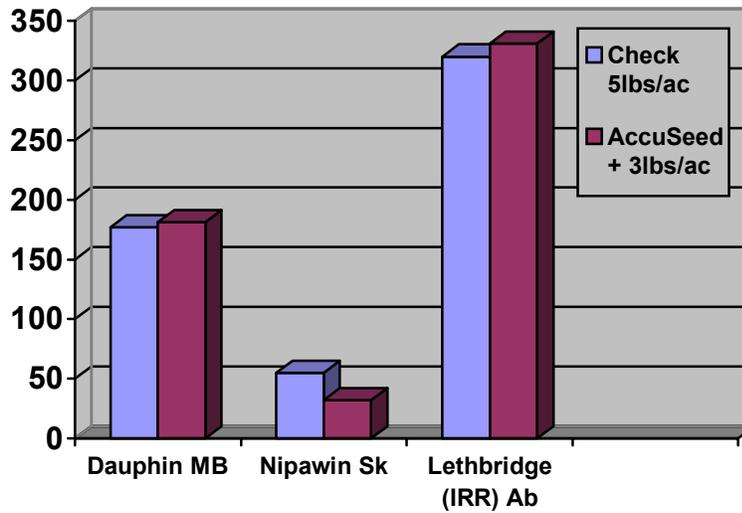
Note: NYD - Net Yield Data (bu/ac), CMD - Contribution Margin Data (\$/ac)

Discussion: **The yield difference was not significant between the 3 lb/ac + AccuSeed and the 5 lb/ac seeding rate without AccuSeed (Table 8).**

Yield Graph



Contribution Margin Dollars Graph



**** Contribution Margin details**

Dauphin Mb

AccuSeed+3 lbs Canola seed = \$5.00/acre increased margin.

Lethbridge (irr), Ab

AccuSeed+3 lbs Canola seed = \$11.00/acre increased margin.

Nipawin, Sk

AccuSeed+3 lbs Canola seed = \$23.00/acre decrease margin

**** Note drought severely effected this site, and the plant population as a result.**

General Information:

For best results minimum plant populations must be achieved. Lowering seeding rates below 5 lbs/acre can reduce yields if plant populations are inadequate. (<20 plants/m²).

Inadequate plant populations can lead to:

- **Poor canopy development and increased weed pressure.**
- **Late maturity.**

Tiger Industries is currently researching reduced rate technology and currently promotes achieving adequate plant populations.

AccuSeed applied with traditional canola seeding rates can achieve the following benefits:

- **Seeding rates are accurately obtained by seeding a higher rate of total combined product.**
- **Additional sulphur can be applied with existing fertility program.**
- **By achieving proper seeding rates, over-application can be reduced, thus saving money on seed costs.**

For more information regarding AccuSeed please contact Tiger-Sul Products (Canada) Co. at 1-877-299-3399 or visit our web site at

