



THE PULSE AGRONOMY NETWORK  
PARTNERSHIP WITH INDUSTRY

## PAN ALL PULSE BULLETIN #7 - APRIL 5, 2005

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### **Preseed weed control**

Preseed weed control in pulses can be more challenging than in cereal crops since many herbicide tank mixes cannot be used in these crops due to their sensitivity to herbicide residues. It is also a critical operation since most pulse crops are not strong competitors. The 2003 RT Linkages survey showed 50% of farmers surveyed use a preseed burn off; farmers managing 2 sections or more are more likely to use a preseed burn off, and 32% of the producers surveyed indicated that they were going to use a post- seed burn off in 2004.

#### **Preseed burn off**

Hard to kill weed species such as **Narrow leaved hawks beard** ( 3-6"), **flixweed**, ( 3-6"), **cleavers**, **wild buckwheat** (3-4 lf ), and **downy brome** will require higher rates of glyphosate to be controlled. To ensure maximum performance in pulses the **0.77 L/ac rate** should be used.

**Shepherds purse** emerges early in the season and begins flowering as temperatures increase, for control of this species the **0.91 L/ac** rate is required.

**Kochia** has extended its habitat in recent years and is becoming a challenge to control in-crop. Since **Odyssey** only provides **suppression of kochia** in field peas, it is important to obtain control in the preseed/pre-emergent window. Timing, rate and coverage are the issues for effective control of this weed species. Kochia emerges quickly (1-3 days) and can germinate under low moisture conditions. Early application of glyphosate when kochia is <15 cm at the **0.51-0.77L/ac rate** with 10 gal/ ac. water will ensure maximum coverage and performance. Edge (ethalfluralin ) provides good control of kochia in field peas, lentils, dry beans and fababeans.

**RRcanola** can be controlled with glyphosate plus **MCPA amine at 0.2- 0.28 L/ac** in field peas and lentils preseed. NOTE it is the amine formulation only. Although Monsanto has registration for this mix in chickpeas, they are discouraging the use of this tank mix due to crop injury concerns.

**Dandelion** control in preseed can provide some initial season long suppression but is not generally considered the ideal timing for this weed. The **1 L/ac rate of glyphosate** can provide some good **suppression** if applied **prior to flowering to rosettes**, meter). (15 cm in diameter)

**Amitrol 240 at 1.7 L/ac** can be used to control dandelions < 10 cm in diameter plus other annual weed species, plant back period for field peas is 5 to 7 days.

#### **Pre-emergent/Post-seed applications**

Pulse crops allow for a wider window of opportunity for pre-emergent/ post-seeding applications of glyphosate. It usually takes **field peas 2-3 weeks to emerge**, since pea seeds must imbibe more than 10 X their weight in water. This delay however allows the opportunity to control weeds prior crop emergence. Recent research at the University of Saskatchewan indicates that **glyphosate should not be applied more than 24 hours after the first sign of crop emergence** (ground crack). For example if glyphosate was applied 24 hrs after ground crack in lentils, it decreased plant stand by 12% and reduced yield by 20%. So monitoring the crop emergence is critical for maximizing crop safety. A word of caution: farmers have expressed concern that this may put them in less than favourable position for in-crop herbicide applications. However it can also minimize the early weed competition and provide good weed control until canopy closure. This is part of the risk management assessment necessary to analysis whether this is an appropriate weed control strategy for each farm/ farmer and cropping system. **Links** <http://www.reducedtillage.ca> How to maximize glyphosate performance. This excellent factsheet provides tips to optimize glyphosate performance.

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#### **Where did you take that photo?**

If you have a need to geo-reference your field photos (research plots, complaint fields, customer records), here is a simple program that allows you to do just that. You need the ability to download your GPS tracklog and a digital camera with the clock set correctly. The software matches time the photo was taken with the GPS coordinates for the same given time and embeds the GPS info on the photos EXIF data... so you can always tell where and when that photo was taken.

<http://www.robogeo.com/home/>

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We encourage you to share the PAN information with others. In return, we ask that you list the source as the Pulse Agronomy Network.

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