

Control of ragweed with sunflower varieties tolerant to post-emergence herbicides



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New solutions for sunflower weeding

Imazamox (Pulsar 40) and tribenuron-methyl (Express SX) are broad spectrum post-emergence herbicides efficient on ragweed.

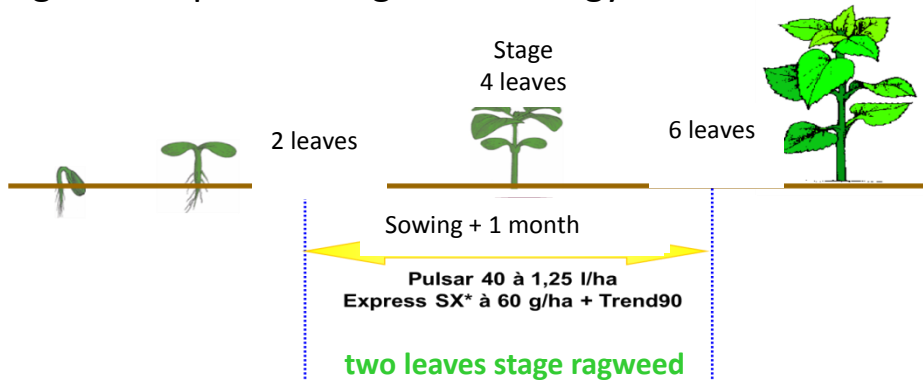


The use of these herbicides on sunflower requires tolerant varieties, available in France since 2009 :

- ✓ **Sun Express varieties** tolerant to tribenuron-methyl,
- ✓ **Clearfield varieties** tolerant to imazamox

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Fig. 1 : the post-emergence strategy



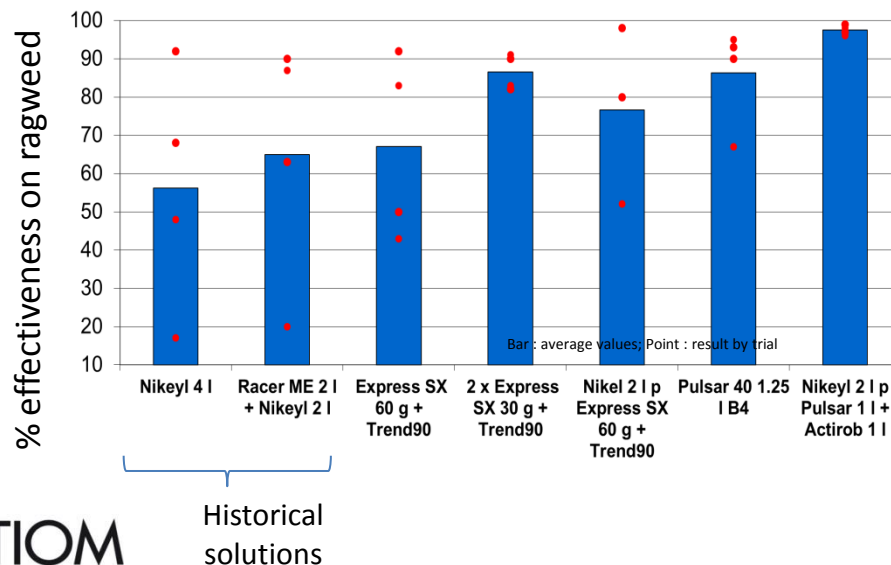
Effectiveness on ragweed

These varieties allow weed control strategies based on a post-emergence treatment (fig. 1) possibly in combination with a pre-emergence treatment or mechanical weeding.

The effectiveness of these strategies on ragweed was assessed in trials conducted between 2008 and 2010 (fig. 2).

These strategies were globally superior to the previous ones based on a pre-emergence treatment.

Fig. 2 : field trials results (2008-2010)



Mechanical weeding may be used in combination with post-emergence treatment

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Recommendations for a sustainable use

- Imazamox and tribenuron-methyl belong to the family of ALS (Acetolactate-synthase) inhibitors herbicides whose use however may lead to the emergence of resistant ragweed populations in the future.

To manage this risk, it is recommended to :

- ✓ Use the full dose of these herbicides
 - ✓ In case of high ragweed infestations (10 to 20 / m²), combine the use of these herbicides with a pre-emergence treatment : **Cline** or **Nikeyl** (aclonifen + flurtamone) 2 l /ha
- In all cases, the implementation of agronomic preventive measures along the rotation and the inter-cropping periods is necessary to reduce the seed bank, future infestations and subsequent pollen production

- ✓ Stale seed bed before sowing



- ✓ Soil cultivation after the harvest of winter crops





Thank you for your attention