ClearField a ExpressSun technology in sunflower in conditions of Central Europe

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Contribution of sunflower HT technologies for farmers

- No post-emergent herbicides with wide weed spectrum of efficacy is usable for conventional hybrids of sunflower

- Conventional sunflower is usually used pre-emergent herbicides which efficacy often decreased, especially in dry condition

- Perennial weeds not controlled any herbicides in conventional sunflower
Increasing of crop area of HT sunflower in Slovakia

(in thousand ha, source: BASF, *estimation of SPZO)
ExpressSun® technologie

- Hybrids tolerant to tribenuron (Express 50 SX used in application rate 45-60 g/ha),
- Recommended with adjuvant (Trend 90)
- Main advantages – speed efficacy and excellent control of Chenopodium album
- Main disadvantages – no control of grass weeds and higher risk of phytotoxicity
Express + Trend

Good control of Cirsium arvensis
Trophy/Outlook (PRE)  
Express + Trend (POST)  

2010  
2011  

Dry conditions
In some years, phytotoxicity and decreasing of efficacy on grass weeds are caused.
ClearField® technologie

- CL hybrids are tolerant to imidazolinone herbicides (in West and Central Europe used imazamox)
- Main advantages – wider weed spectrum, low risk of phytotoxicity, wide spectrum of hybrids
- Main disadvantages – slow efficacy, lower efficacy on Chenopodium album and Cirsium arvense
Pulsar 40 – 1,2 l/ha

Lower efficacy on Chenopodium album and Mercurialis annua, especially in dry conditions
Pulsar 40 + Dash

Without adjuvant

DASH
Pulsar 40
split application (0.6 + 0.6 l/ha)

20 days after second application
Selectivity of ClerField hybrids to imazamox

Phytotoxicity occurs only at an application rate of 2N and more.

Usually, it occurs in combination with another stress factor.
Selectivity of ExpressSun hybrids to tribenuron
Recommendation for **ClearField®** technology in weed management in Sunflower in Central Europe

**imazamox**

**PRE herbicide**  
**imazamox**

**Soil residual activity**
Recommendation for **ExpressSun®** technology in weed management in Sunflower in Central Europe
Control of volunteer HT sunflower

- Different level of tolerance to different ALS inhibitor, especially sulfonylurea
- Higher level of tolerance to most of ALS inhibitors was recorded at ExpressSun hybrids
- Problematic control mainly in maize and in dry condition
- Low efficacy on volunteer HT sunflower was recorded at nicosulfuron, thifensulfuron and rimsulfuron.
Thank you for your attention