



*Sorghum: the safe
bet for the future*

Weed control in Sorghum

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INTRODUCTION

- Sorghum is very **sensitive to the early competition of the weeds**
- The most harmful weeds to sorghum installation are **summer grasses**
- **Same weeds as the ones in maize**
- Weed control objective : **rapid and uniform emergence of sorghum**



WEED CONTROL IN SORGHUM

Main weeds in Europe

FRANCE

GRASSES

Echinochloa crus-Galli
Digitaria Sanguinalis
Setaria sp.
Sorghum halepense
Panicum miliaceum

BROADLEAVES

Polygonum aviculare
Fallopia convolvulus
Chenopodium sp.
Amaranthus sp.
Datura stramonium
Xanthium
Calystegia

ITALY/SPAIN

GRASSES

Echinochloa crus-galli
Digitaria sp.
Sorghum halepense

BROADLEAVES

Galium Aparine
Abutilon
Polygonaceae
Solanum nigrum

ROMANIA/BULGARIA

GRASSES

Echinochloa crus-galli
Digitaria sp.
Sorghum halepense

BROADLEAVES

Amaranthus
Chenopodium sp.
Datura stramonium
Xanthium
Cirsium Arvense
Solanum nigrum

HUNGARY

GRASSES

Echninochloa crus-galli
Setaria sp.
Digitaria Sanguinalis
Panicum Miliaceum
Sorghum Halepense

BROADLEAVES

Chenopodium sp
Amaranthus sp.
Sonchus Arvense
Cirsium Arvense
Polygonum aviculare
Datura stramonium
Ambrosia artemisiifolia
Abutilon

WEED CONTROL IN FRANCE

Registration

- Sorghum is linked to maize (reference crop)
- Most herbicides used on sorghum are registered on maize
 - Some maize herbicides are not safe enough to sorghum
 - Behaviour of Sorghum herbicides is not the same as Maize 's one (ex penoxsulam is safe to sorghum but not enough to maize)

WEED CONTROL IN FRANCE

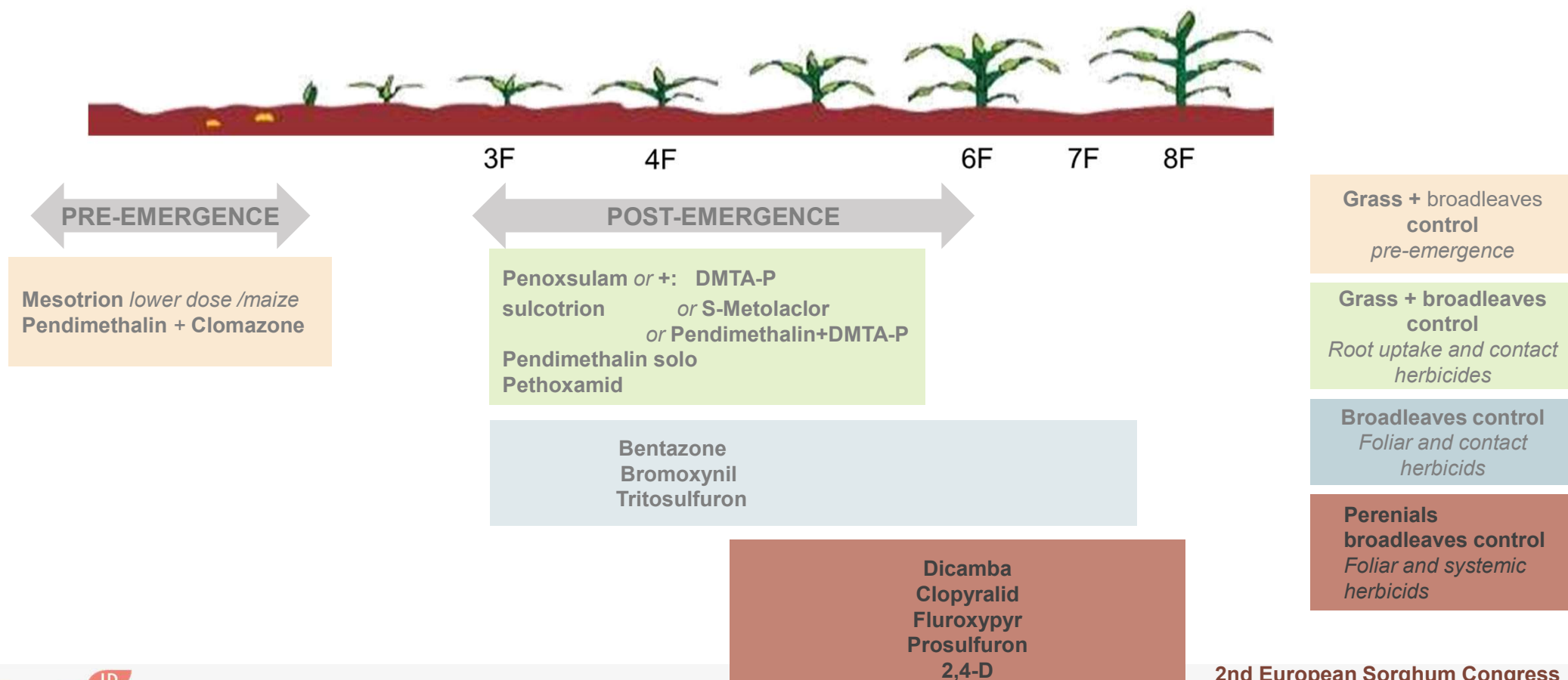
Main weed control programs :

- Preemergence solutions are limited
 - Active ingredients used in preemergence in maize are not enough selective (ex S-metolachlor, DMTA-P)
 - > Only 3 active ingredients have been very recently registered : mesotrion, clomazone, pendimethalin

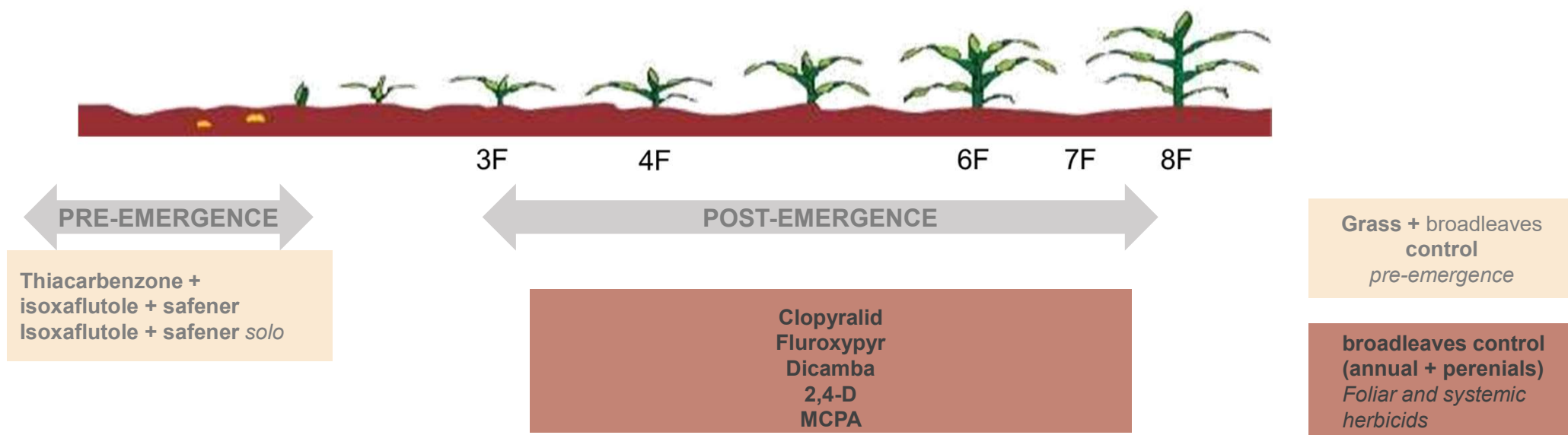
- Weed control is mainly based on postemergence products from 3 leaves of Sorghum

- Conclusion : few solutions to control grasses

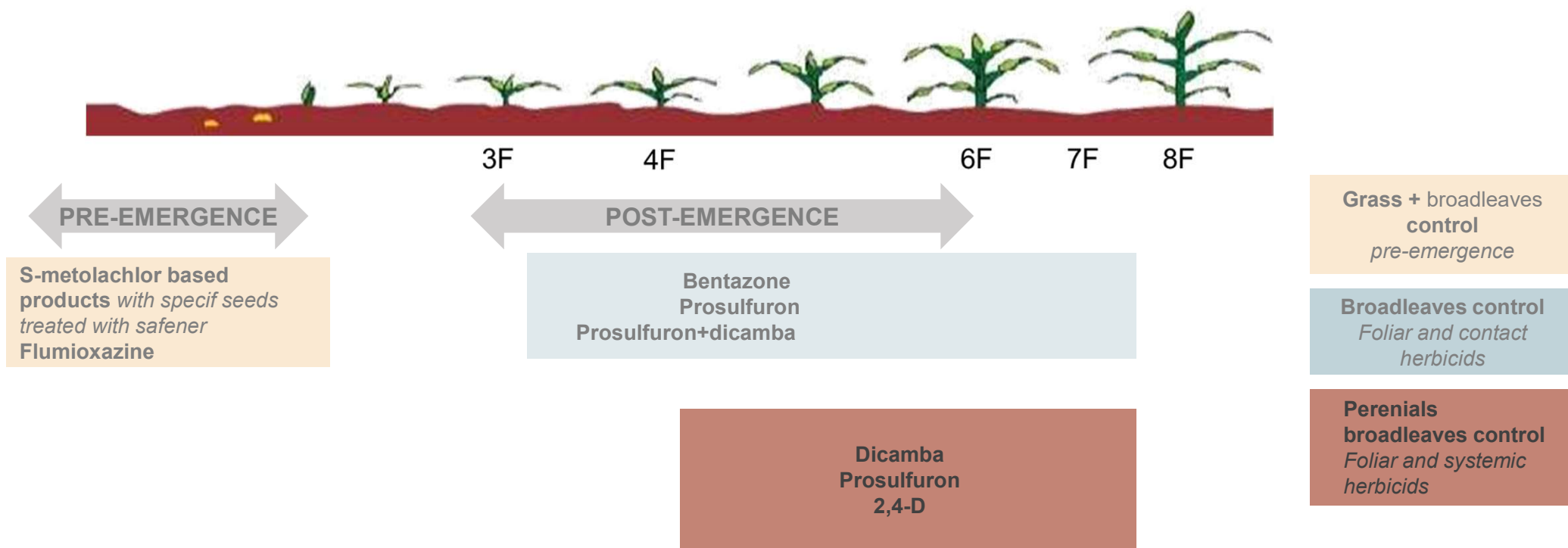
WEED CONTROL IN FRANCE



WEED CONTROL IN BULGARIA/ROMANIA



WEED CONTROL IN HUNGARY



SORGHUM ID'S TRIALS IN AUSTRIA

| | Treatment Preemergency | Treatment Postemergency from 3 leaves | Notation (1 to 9. 1 = very bad ; 9 = very good) |
|---|---|---|--|
| 1 | Alcance 2 l/ha + Temsa100 1 l/ha Pendimethalin + Clomazone + Mesotrione | | 9 |
| 2 | Alcance 2 l/ha + Temsa100 1 l/ha | Isard 1 l/ha + Décano 0.5 l/ha DMTA-P + Sulcotrione | 9 |
| 3 | | Isard 1 l/ha + Décano 0.5 l/ha | 6-7 |
| 4 | Alcance 2 l/ha + Temsa100 1 l/ha | Boa 0.8 l/ha + Emblem 0.5 kg/ha Penoxulam + Bromoxynil | 8 |
| 5 | Alcance 2 l/ha Pendimethalin + Clomazone | Isard 1 l/ha + Décano 0.5 l/ha | 8 |
| 6 | | Dakota-P 3 + Boa 0.8+ Emblem 0.5 kg/ha DMTA-P + Pendimethalin + Penoxsulam + Bromoxynil | 6-7 |
| 7 | No treatment | No treatment | 2 |

SORGHUM ID'S TRIALS IN AUSTRIA

Conclusions of this trial :

- Preemergence solutions are the most efficient.
- Efficiency with only postemergence is not satisfying enough
- Preemergence + postemergence is not necessary if the field is relatively clean
- Preemergence + postemergence can be a good solution if the weed pressure is high



2nd European

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