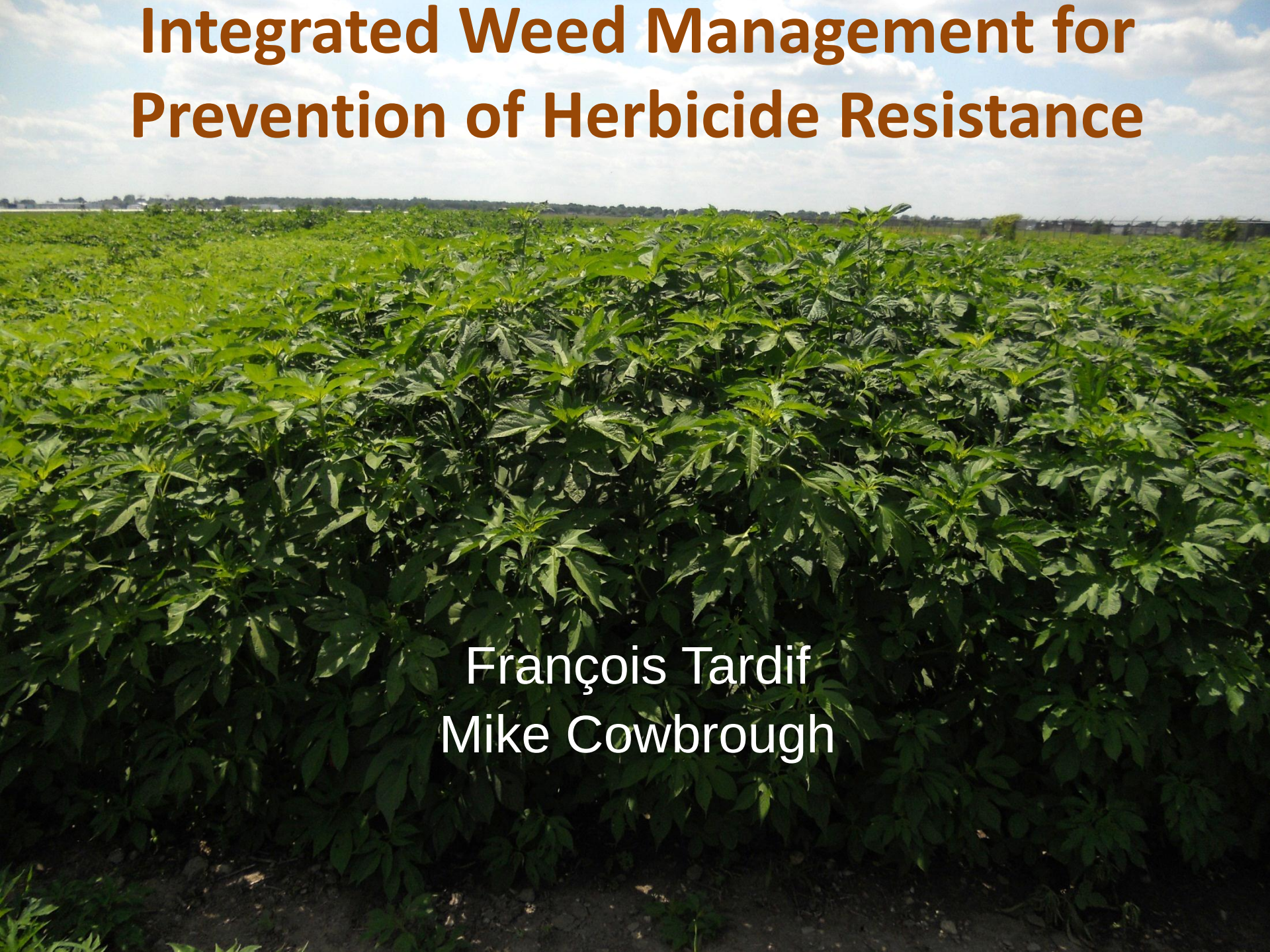
Integrated Weed Management for Prevention of Herbicide Resistance



François Tardif
Mike Cowbrough

make the switch

From one herbicide to another

Technology can look good…

Triazine resistance…

Pursuit saves the day

Technology can look good…

Group 2 Resistance

Roundup saves the day…

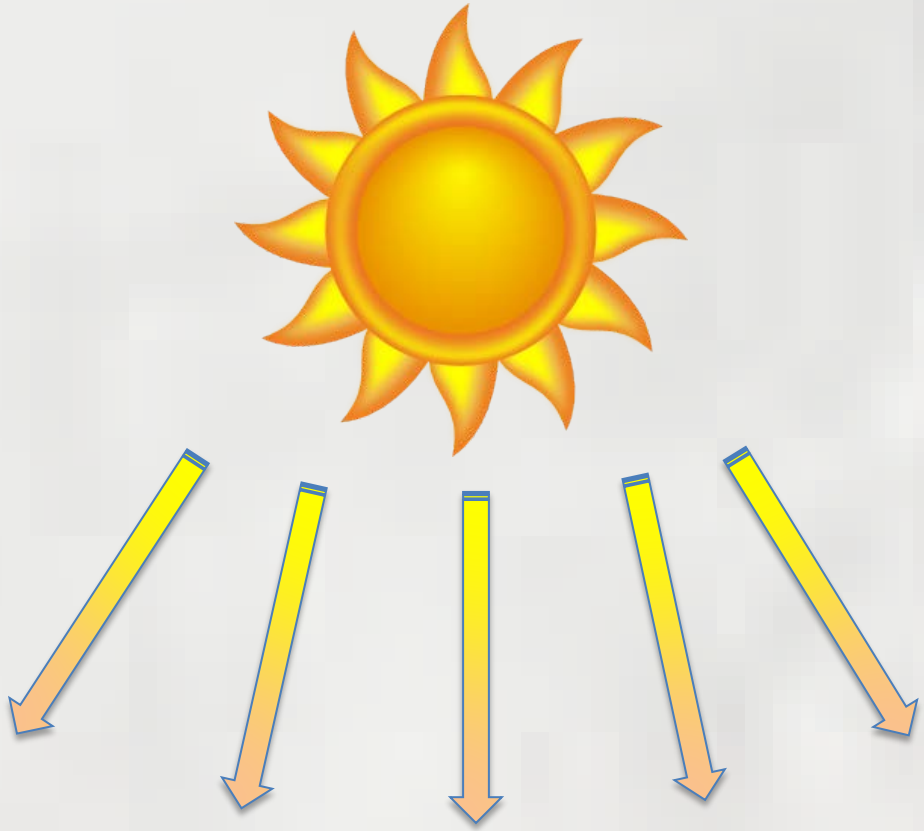
Technology can look good…

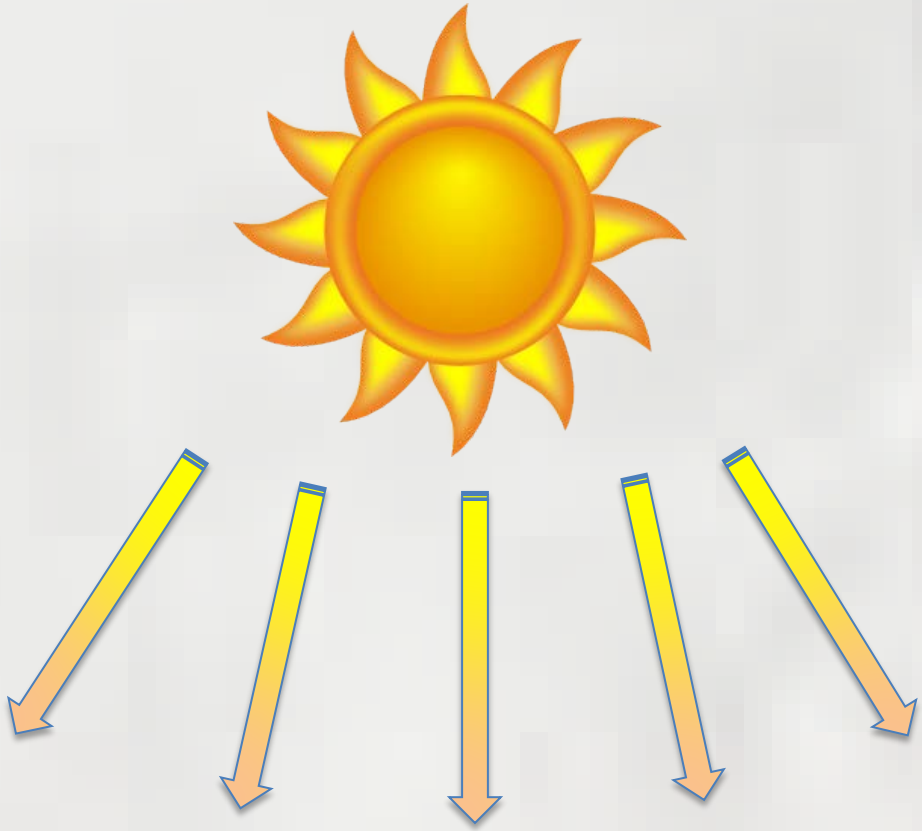
Roundup resistance…

Dicamba saves the day

Favourite solution = Alternative herbicides

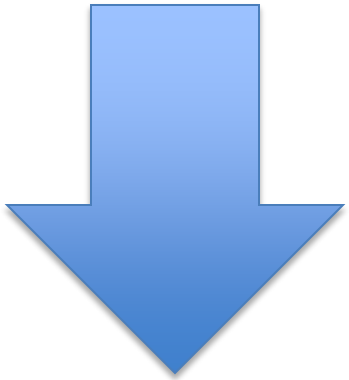
What do weeds need?





Fight the light

Bring more shade in the system



Reduce reliance on herbicides


Virginia Tech Weed ID Guide

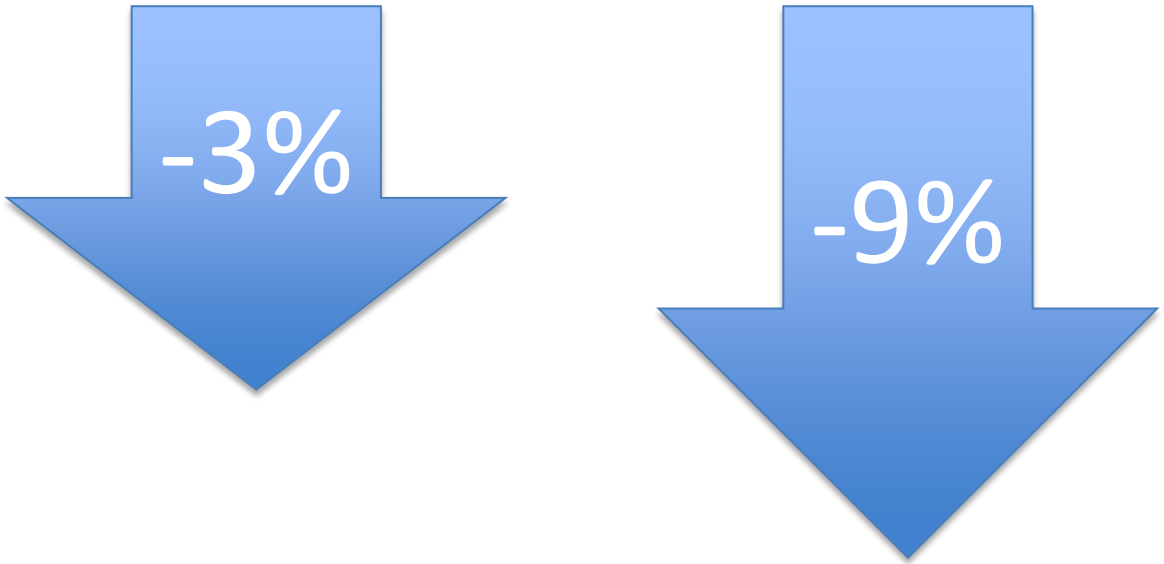
Two trials

- Cultural weed control in soybeans
- Corn/soybean/wheat rotation

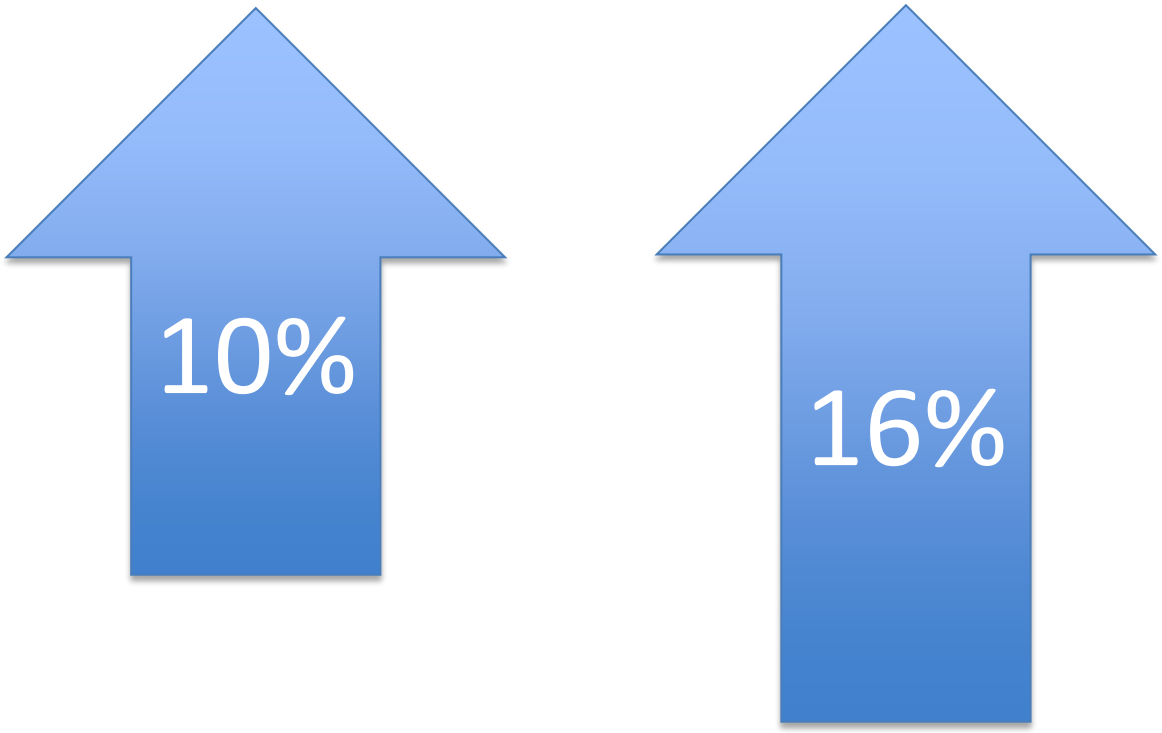
Soybeans

- Thin vs branching cultivar
- N-fertilizer at planting vs no fertilizer
- High seed density vs normal density
- With or without herbicides

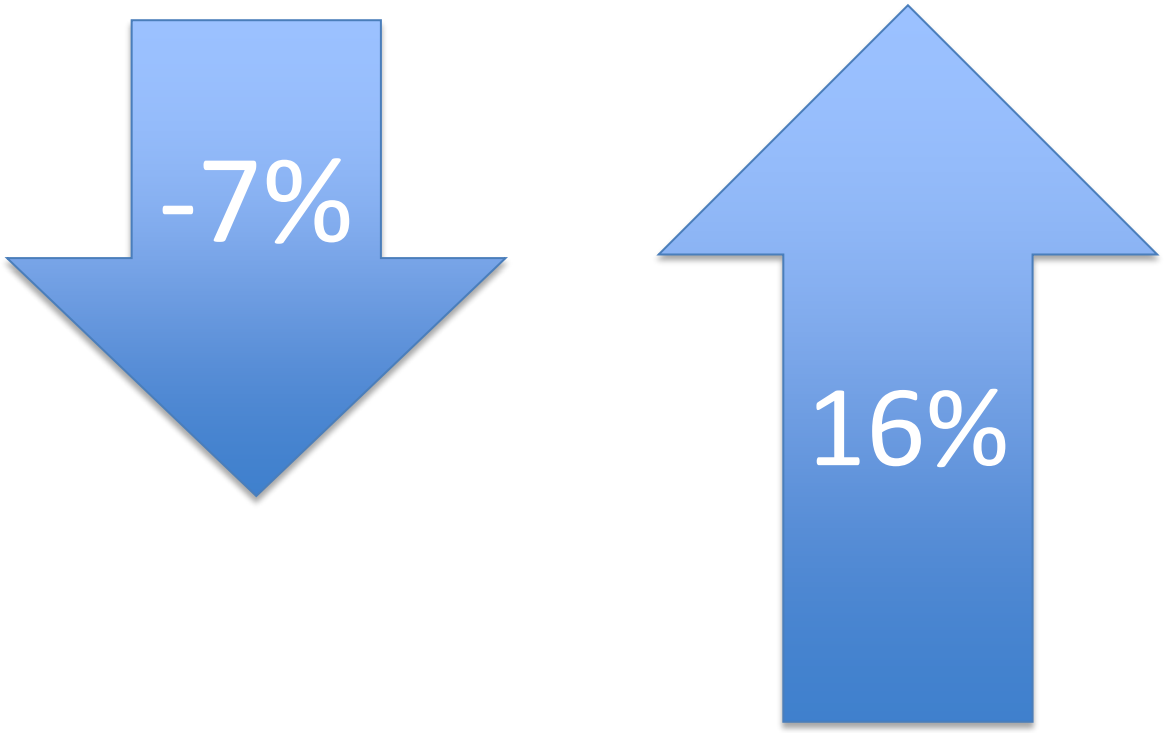
Adding fertilizer at planting reduced yield



Increasing seeding rate was beneficial



Cultivar effect was variable



Rotation trial

Rotation trial

Low intensity → **High intensity**

Limited	Conventional	High density	Fight the light
			
			
			

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	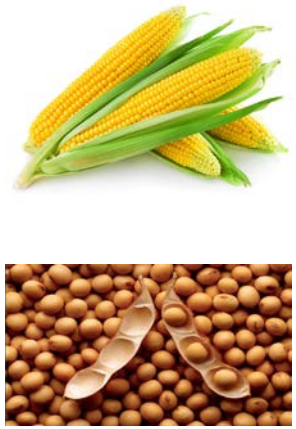		
			
			

Corn density has an effect on weeds

Corn at 32000 plants/ac

Corn at 42000 plants/ac

Corn at 42000 plants/ac + cover crops

Soybeans high density

Soybeans low density

There are ways to increase canopy

Herbicides still an important part of the system

Thanks!!!

Ontario
Ministry of Agriculture, Food and Rural Affairs

University of Guelph
Changing Lives Improving Life

Grain Farmers of Ontario

DuPont
Pioneer