# Sustainable glyphosate use in Australian vegetable production



## The number of glyphosate resistant weed species present in Australian vegetable production systems is increasing.

### You can reduce the risk of glyphosate resistance in weeds

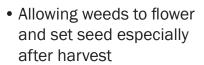
### **Best practice**

 Prevent weeds from flowering and setting seed, especially after harvest



- Use alternate herbicide modes of action
- Use the double knock\*
- Use non-herbicide practices for weed control, e.g. mowing, mulching, tillage or strategic grazing
- Ensure that any machinery coming onto the farm is free from soil and weeds
- Control all weeds and volunteer plants in planting gaps, around buildings and after harvest
- Use clean quality-assured seed for planting

### **High risk practices**





- Continual reliance on glyphosate for weed control around buildings, roads, channels and drains
- Few alternative herbicide modes of action used
- Lack of non herbicide weed control methods, e.g. mowing, mulching, tillage or grazing
- Poor field hygiene (contaminated machinery, vehicles and stock coming onto farm) leading to movement of herbicide resistant weed seed
- Poor application technique leading to sub-lethal rates of herbicide at the ends of rows (poor control = more weeds)

#### All Group M herbicides are glyphosate herbicides.

If you suspect you have a resistance problem — get plants or seed tested to see which herbicides still work. The best strategy is to ensure that no further seed set is allowed to occur, and to drive down the weed seedbank using a number of diverse weed management tactics.

Optimal management techniques for different weed species will vary.

\*The double knock technique is defined as using a full cut cultivation OR the full label rate of a paraquat-based product (Herbicide Group L) following the glyphosate (Herbicide Group M) knockdown application.