B8. Growth Regulant trial, South East (Conmurra), South Australia

Aim

To determine growth regulants can be used to modify canopy architecture of bean.

Treatments

Varieties:	Nura, Farah, Aquadulce, Aquadulce_Gilb (grower selection), 974*(611*974)/15-1 (abbreviated in text to 974*)
Chemicals:	Cycocel (2L/ha) Glyphosate (100ml/ha) Tebuconazole (500ml/ha)
Timings:	Single – at 25cm crop height Double – at 25cm crop height, plus 14 days later Triple - 25cm crop height, plus 14 and 28 days later (Cycocel only)
Sowing Date:	15th June
Fertiliser:	Map + Zn @ 100kg/ha at sowing

Results and Interpretation

Grain yield were high and plant canopies were large in 2010, however none of the three chemicals and seven treatments achieved a significant reduction in height or grain yield difference at the rates tested (Table B8.1).

Table B8.1. Effect of various growth regulant chemistries and timings on plant height and yield of faba bean, Conmurra 2010.

Treatment	Plant Height (cm)	Yield (t/ha)
Nil	140.6	6.6
Cycocel x1	137.8	7.1
Cycocel x2	142.2	6.3
Cycocel x3	137.3	6.7
Glyphosate x1	144.5	6.0
Glyphosate x2	141.0	6.3
Tebuconazole x1	139.7	6.1
Tebuconazole x2	138.2	6.3
LSD (P<0.05)	NS	NS

Key Findings and Comments

Penetration of fungicides into large bean canopies can present a problem, particularly in higher rainfall areas, where canopies are larger and incidence of disease is higher. Manipulation of bean canopies through reducing height and density would allow much easier fungicide application, efficacy and perhaps even reduce disease intensity in itself. This pilot study showed that none of these chemicals tested showed a significant reduction in plant height when applied at the dosage rates tested. Further study could examine higher rates or alternative chemicals to test whether growth regulants can be employed for disease control and improved harvestability of faba bean.