4.5 Canola Folliar Fertiliser Trial

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Background

Previous trials with foliar fertiliser products such as Photrel have provided both increased grain and oil yield from canola. Sulphur F3000 (34%S, 14% N) has not yet been evaluated in Australia. Significant use of this product has occurred overseas.

Aims

To evaluate the performance of Phosyn products on both grain and oil yield in canola. Two small plot replicated trials were established to evaluate the performance of Photrel and Sulphur F3000 on canola. These trials were established on Pinnacle and Charlton varieties.

| Treatment No | Product | Rate/ha Product | Timing |
|-----------------|----------------|--------------------|---------------------------------------|
| 1 | Untreated | | 18.40 |
| 2 | Photrel | 3kg | 4-9 leaves/prior to stem extension |
| 3 | Sulphur F 3000 | 5 ltrs | 4-9 leaves/prior to stem extension. |

Photrel contains: 14.7% Sulphur, 8% Magnesium, 5% Boron and 7% Manganese

Sulphur F 3000 contains: 34% Sulphur

Application

Treatments were applied using a Hardi PTO sprayer powered by a John Deere 6310 tractor. A 6 m boom delivered a water rate of 90 L/ha at a speed of 10 km/hr with Hardi 12 Flat fan nozzles. A randomized block design was used with plot size of 5.1 metres wide and legth of 30m Three replicates were established.

The product was applied on 4/10/99 to Pinnacle which was at 10% flowering and 50 cm high (Crop stage BBCH stage 61) and to Charlton on 4/10/99 which was 50% flowering and 75 cm high (crop stage BBCH stage 65)The crop was windrowed on 7/12/99 and harvested on 21/12/99.

RESULTS

| Treatment | | Pinnacle | Charlton |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
| | Rate per ha | Yield kg/ha | Yield kg/ha |
| Control | and the same of th | 1.27 | 0.99 |
| Photrel | 3 kgs | 1.30 | 1.11 |
| Sulphur F 3000 | 5 Litres | 1.05 | 0.94 |

There was no significant difference between treatments

DISCUSSION

Soil analysis obtained from the site indicated that most nutrients were in adequate supply with the exception of Phosphorus. Gypsum was applied to both sites in 1995 at 2.5 T/Ha. DAP was applied to the crop at sowing at the rate of 100 kg/ha.

Plant tissue tests completed on 24/9/99 indicated that all nutrients were in adequate supply.

Crop phyto assessments up to 28 days after treatment revealed no differences between treatments in terms of crop appearance.

The Pinnacle was higher yielding than Charlton, possibly reflecting the better control of weeds through the use of Triazine herbicides.

The lack of yield or oil increase from either treatments, is no doubt due to the adequate fertility of the soil and the very dry year experienced which reduced the overall yield potential.