



# SURFACE IRRIGATED SOYBEANS (diesel pump from bore)

## Farm Enterprise Budget Series - Northern Zone

Summer 2009-2010

### 1. GROSS MARGIN BUDGET:

**INCOME:**

3.00 tonnes/ha at \$380.00 /tonne (on farm)

| Sample Budget \$/ha | Your Budget \$/ha |
|---------------------|-------------------|
| \$1,140.00          |                   |

**A. TOTAL INCOME \$/ha:**

|                   |  |
|-------------------|--|
| <b>\$1,140.00</b> |  |
|-------------------|--|

**VARIABLE COSTS:**

see following page(s) for details

|                                       |                 |  |
|---------------------------------------|-----------------|--|
| Cultivation.....                      | \$26.60         |  |
| Sowing.....                           | \$122.04        |  |
| Fertiliser.....                       | \$87.00         |  |
| Herbicide.....                        | \$54.52         |  |
| Insecticide.....                      | \$44.50         |  |
| Irrigation.....                       | \$295.26        |  |
| Levies and insurance.....             | \$61.10         |  |
| Harvest.....                          | \$79.94         |  |
| <b>B. TOTAL VARIABLE COSTS \$/ha:</b> | <b>\$770.96</b> |  |

**C. GROSS MARGIN (A-B) \$/ha:**

|                 |  |
|-----------------|--|
| <b>\$369.04</b> |  |
|-----------------|--|

**D. GROSS MARGIN \$/MI:**

|                |  |
|----------------|--|
| <b>\$61.51</b> |  |
|----------------|--|

### SENSITIVITY TABLES

#### 2. EFFECT OF YIELD AND PRICE ON GROSS MARGIN PER HECTARE:

| YIELD tonnes/ha | On Farm Price |          |              |          |          |
|-----------------|---------------|----------|--------------|----------|----------|
|                 | \$330 /t      | \$355 /t | \$380 /t     | \$405 /t | \$430 /t |
| 1.50            | -\$264        | -\$227   | -\$190       | -\$153   | -\$116   |
| 2.00            | -\$101        | -\$52    | -\$2         | \$47     | \$97     |
| 2.50            | \$62          | \$124    | \$186        | \$248    | \$310    |
| <b>3.00</b>     | \$221         | \$295    | <b>\$369</b> | \$443    | \$518    |
| 3.50            | \$379         | \$465    | \$552        | \$639    | \$725    |
| 4.00            | \$537         | \$636    | \$735        | \$834    | \$933    |
| 4.50            | \$696         | \$807    | \$918        | \$1,030  | \$1,141  |

#### 3. EFFECT OF YIELD AND PRICE ON GROSS MARGIN PER MEGALITRE:

| YIELD tonnes/ha | On Farm Price |          |             |          |          |
|-----------------|---------------|----------|-------------|----------|----------|
|                 | \$330 /t      | \$355 /t | \$380 /t    | \$405 /t | \$430 /t |
| 1.50            | -\$44         | -\$38    | -\$32       | -\$26    | -\$19    |
| 2.00            | -\$17         | -\$9     | \$0         | \$8      | \$16     |
| 2.50            | \$10          | \$21     | \$31        | \$41     | \$52     |
| <b>3.00</b>     | \$37          | \$49     | <b>\$62</b> | \$74     | \$86     |
| 3.50            | \$63          | \$78     | \$92        | \$106    | \$121    |
| 4.00            | \$90          | \$106    | \$123       | \$139    | \$156    |
| 4.50            | \$116         | \$134    | \$153       | \$172    | \$190    |

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| CALENDAR OF OPERATIONS:                 |       | Machinery    |         |       | Inputs             |       |        | Total               |
|---|-------|--------------|---------|-------|--------------------|-------|--------|---------------------|
| Operation                               | Month | hrs/ha       | Cost    | Total | Rate/ha            | Cost  | Total  | Total Cost<br>\$/ha |
|   |       |              | \$/hour | \$/ha |                    | \$    | \$/ha  |                     |
| Herbicide - ground spray, glyphosate CT | Jan   | 0.05         | 47.19   | 2.36  | 1.2 L              | 5.21  | 6.25   | <b>8.61</b>         |
| Herbicide - 2,4-D i.p.a. 300g/L         | Jan   | with above   |         |       | 0.66 L             | 4.18  | 2.76   | <b>2.76</b>         |
| Wetter - non-ionic surfactant           | Jan   | with above   |         |       | 0.2 L              | 6.86  | 1.37   | <b>1.37</b>         |
| Herbicide - ground spray, glyphosate CT | Mar   | 0.05         | 47.19   | 2.36  | 1.2 L              | 5.21  | 6.25   | <b>8.61</b>         |
| Wetter - non-ionic surfactant           | Mar   | with above   |         |       | 0.2 L              | 6.86  | 1.37   | <b>1.37</b>         |
| Herbicide - ground spray, glyphosate CT | May   | 0.05         | 47.19   | 2.36  | 1.0 L              | 5.21  | 5.21   | <b>7.57</b>         |
| Wetter - non-ionic surfactant           | May   | with above   |         |       | 0.2 L              | 6.86  | 1.37   | <b>1.37</b>         |
| Hill-Up (or Bed)                        | Aug   | 0.22         | 48.90   | 10.76 |                    |       |        | <b>10.76</b>        |
| Fertiliser - Starter Z                  | Aug   | with above   |         |       | 100 kg             | 0.87  | 87.00  | <b>87.00</b>        |
| Spray and incorporate                   | Nov   | 0.15         | 52.81   | 7.92  |                    |       |        | <b>7.92</b>         |
| Herbicide - trifluralin (480 g/L)       | Nov   | with above   |         |       | 2.8 L              | 8.16  | 22.85  | <b>22.85</b>        |
| Pre-Irrigate                            | Nov   |              |         |       | 1.4 ML             | 49.21 | 68.89  | <b>68.89</b>        |
| Sowing: Seed + inoculum                 | Dec   | 0.12         | 69.06   | 8.29  | 65 kg              | 1.75  | 113.75 | <b>122.04</b>       |
| Inter-row cultivate                     | Jan   | 0.15         | 52.81   | 7.92  |                    |       |        | <b>7.92</b>         |
| Irrigate                                | Jan   |              |         |       | 1.2 ML             | 49.21 | 59.05  | <b>59.05</b>        |
| Crop insurance **                       | Jan   |              |         | 4.34% |                    |       |        | <b>49.48</b>        |
| Irrigate                                | Feb   |              |         |       | 1.2 ML             | 49.21 | 59.05  | <b>59.05</b>        |
| Irrigate                                | Feb   |              |         |       | 1.2 ML             | 49.21 | 59.05  | <b>59.05</b>        |
| Insecticide - deltamethrin ULV          | Mar   | aerial spray |         | 17.00 | 2.5 L              | 11.00 | 27.50  | <b>44.50</b>        |
| Irrigate                                | Mar   |              |         |       | 1.0 ML             | 49.21 | 49.21  | <b>49.21</b>        |
| Harvest #                               | Apr   | contract     |         | 79.94 | per ha incl fuel   |       |        | <b>79.94</b>        |
| Research Levy                           |       |              |         | 1.02% | of farm gate value |       |        | <b>11.63</b>        |

## AGRONOMIC NOTES:

**Insects:** Closely monitor for green vegetable bug, heliothis and mites. Deltamethrin is applied to control green vegetable bugs or heliothis.

**Fertiliser:** Soybean is sensitive to zinc deficiency. Zinc treatment should be included when necessary in this example zinc is applied 1 year in 5.

**Weeds:** To reduce the likelihood of herbicide resistance, rotate herbicide groups and weed management techniques.

**Insurance:** \*\* Varies with local government area and postcode, check with your insurer.

# Harvest costs based on \$74.94 (including \$4.94/ha fuel) /ha for a crop up to 2.5 t/ha with estimated increment of \$1.00 per extra 100 kg/ha above 2.5 t/ha.

For further information, refer to the I&I NSW Agfact, "Soybeans" P5.2.6 and the NSW DPI "Summer Crop Production Guide 2009-10".

*Use of a particular brand name does NOT imply recommendation of that brand by I&I NSW.*

*Always read chemical labels and follow directions, as it is your legal responsibility to do so.*

**LABOUR REQUIREMENTS:** - labour is not costed in this budget. If labour costs \$20.00 /hr, total labour cost would be \$16.75, reducing the gross margin to \$352 /ha.

This does not include labour required to irrigate since this is more likely to be an overhead cost.

## MACHINERY ASSUMPTIONS:

Tractor: 170 KW PTO (230 HP) and 200 KW engine (265 HP)

Machinery costs refer to variable costs of: fuel, oil, filters, tyres, batteries and repairs.

You may need to add overhead costs as well, please refer to the Tractor and Implement Costs Guide

**IRRIGATION:** # Water usage charge of \$3.71 per ML assumed, your charges may be different

Water pumping costs: calculated using a flood/furrow system with diesel powered pumping from surface supply.

Water requirements 6.0ML/Ha is sufficient to adequately irrigate soybeans 4 out of 5 years.

This budget should be used as a GUIDE ONLY and should be changed by the grower to take account of movements in crop and input prices, changes in seasonal conditions and individual farm characteristics. Estimated prices are GST-exclusive.