

# Ruapuna Farms Ltd

- Notes**
- Milking platform only
  - Supplement and pasture is reported as 11 MJME/kg DM equivalent
  - Overseer nitrogen numbers (red and green diamonds) include non-effective land, other metrics use effective area

## Farm characteristics

| Soils       |         | Climate             |                     |                     |                     |                     |
|-------------|---------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Soil family | Ruapuna | 14/15               | 15/16               | 16/17               | 17/18               | 18/19               |
| PAW60       | 70 mm   | Rainfall            | Rainfall            | Rainfall            | Rainfall            | Rainfall            |
|             |         | 652 mm              | 745 mm              | 859 mm              | 1160 mm             | 1005 mm             |
|             |         | Evapo-transpiration | Evapo-transpiration | Evapo-transpiration | Evapo-transpiration | Evapo-transpiration |
|             |         | 728 mm              | 728 mm              | 728 mm              | 728 mm              | 728 mm              |

| Irrigation         |        |        |        |        |        | Fertiliser                   |             |             |             |             |             |
|--------------------|--------|--------|--------|--------|--------|------------------------------|-------------|-------------|-------------|-------------|-------------|
|                    | 14/15  | 15/16  | 16/17  | 17/18  | 18/19  |                              | 14/15       | 15/16       | 16/17       | 17/18       | 18/19       |
| Irrigation applied | 444 mm | 466 mm | 287 mm | 304 mm | 229 mm | Nitrogen applied (effective) | 300 kg N/ha | 295 kg N/ha | 291 kg N/ha | 326 kg N/ha | 269 kg N/ha |
|                    |        |        |        |        |        |                              | 274         | 274         | 269         | 306         | 248         |

## Farm management

| Stock         |             |             |             |             |             |
|---------------|-------------|-------------|-------------|-------------|-------------|
|               | 14/15       | 15/16       | 16/17       | 17/18       | 18/19       |
| Peak cows     | 1479        | 1466        | 1401        | 1411        | 1414        |
| Stocking rate | 3.9 cows/ha | 3.9 cows/ha | 3.7 cows/ha | 3.8 cows/ha | 3.8 cows/ha |
| Live weight   | 500 kg/cow  | 500 kg/cow  | 500 kg/cow  | 495 kg/cow  | 485 kg/cow  |

| Feed                  |               | Pasture       |               |               |               |       | Supplement         |               |               |               |               |               |
|-----------------------|---------------|---------------|---------------|---------------|---------------|-------|--------------------|---------------|---------------|---------------|---------------|---------------|
|                       |               | 14/15         | 15/16         | 16/17         | 17/18         | 18/19 |                    |               |               |               |               |               |
| Pasture eaten         | 15.1 t DM/ha  | 16.0 t DM/ha  | 15.2 t DM/ha  | 15.7 t DM/ha  | 15.3 t DM/ha  |       | Supplement per ha  | 3.4 t DM/ha   | 2.7 t DM/ha   | 3.0 t DM/ha   | 3.1 t DM/ha   | 3.1 t DM/ha   |
| Fertiliser efficiency | 50 kg DM/kg N | 54 kg DM/kg N | 52 kg DM/kg N | 48 kg DM/kg N | 57 kg DM/kg N |       | Supplement per cow | 853 kg DM/cow | 681 kg DM/cow | 795 kg DM/cow | 815 kg DM/cow | 814 kg DM/cow |
| Water efficiency      | 14 kg DM/mm   | 13 kg DM/mm   | 13 kg DM/mm   | 11 kg DM/mm   | 12.4 kg DM/mm |       |                    | 61            | 53            | 54            | 66            | 62            |

| Nitrogen summary           | Calculation  | 14/15       | 15/16       | 16/17       | 17/18       | 18/19       |
|----------------------------|--|-------------|-------------|-------------|-------------|-------------|
| Purchased N surplus        | + Fert N<br>+ Supplement N<br>- Product N<br>- Stored supplement N | 221 kg N/ha | 215 kg N/ha | 207 kg N/ha | 255 kg N/ha | 192 kg N/ha |
| N leaching                 | Overseer v6.3.1  | 84 kg N/ha  | 91 kg N/ha  | 74 kg N/ha  | 91 kg N/ha  | 76 kg N/ha  |
| Purchased N use efficiency | Product N<br>Stored supplement N<br>Fert N<br>Supplement N         | 34%         | 34%         | 36%         | 31%         | 38%         |

## Farm production

| Products              |                |                |                |                |                |
|-----------------------|----------------|----------------|----------------|----------------|----------------|
|                       | 14/15          | 15/16          | 16/17          | 17/18          | 18/19          |
| Productivity          | 1754 kg MS/ha  | 1766 kg MS/ha  | 1687 kg MS/ha  | 1774 kg MS/ha  | 1821 kg MS/ha  |
|                       | 445 kg MS/cow  | 452 kg MS/cow  | 451 kg MS/cow  | 471 kg MS/cow  | 483 kg MS/cow  |
| Milk from pasture     | 82%            | 86%            | 84%            | 84%            | 83%            |
| Fertiliser efficiency | 5.8 kg MS/kg N | 6.0 kg MS/kg N | 5.8 kg MS/kg N | 5.4 kg MS/kg N | 6.8 kg MS/kg N |
| MS as % of liveweight | 89%            | 90%            | 90%            | 95%            | 100%           |
|                       | 107            | 108            | 104            | 108            | 111            |

| Stored supplement        |          |         |          |          |          |
|--------------------------|----------|---------|----------|----------|----------|
|                          | 14/15    | 15/16   | 16/17    | 17/18    | 18/19    |
| Harvest crop area        | 0 ha     | 0 ha    | 0 ha     | 17 ha    | 0 ha     |
| % of farm cut for silage | 44%      | 19%     | 35%      | 16%      | 14%      |
| Stored or exported feed  | 150 t DM | 75 t DM | 188 t DM | 188 t DM | 132 t DM |
|                          | 7        | 4       | 12       | 9        | 7        |