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Nutrient Budget

Farm Budget for: Current farm

| | N | P | K | S | Ca | Mg | Na | H+ |
|-------------------------------|------------|----|----|----|----|----|----|------|
| | (kg/ha/yr) | | | | | | | |
| Inputs | | | | | | | | |
| Fertiliser and lime | 40 | 15 | 7 | 40 | 34 | 5 | 0 | 0.0 |
| House block imports | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Atmospheric/clover N | 31 | 0 | 1 | 1 | 0 | 1 | 1 | 0.0 |
| Irrigation | 5 | 0 | 3 | 5 | 20 | 5 | 20 | 0.0 |
| Slow release | 0 | 3 | 27 | 6 | 3 | 4 | 5 | 0.0 |
| Supplements imported | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Outputs | | | | | | | | |
| Product | 6 | 1 | 0 | 1 | 3 | 0 | 0 | 0.0 |
| Effluent removed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Supplements removed | 8 | 1 | 10 | 1 | 1 | 1 | 1 | 0.0 |
| Atmospheric | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Leaching/runoff | 6 | 0 | 9 | 51 | 17 | 4 | 12 | -0.3 |
| Net immobilisation/absorption | 42 | 15 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Change in inorganic soil pool | 0 | 0 | 19 | 0 | 36 | 10 | 13 | 0.3 |

* Acidity - kg H⁺/ha

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Block maintenance fertiliser nutrient recommendations

For: Current farm

Maintenance fertiliser nutrient recommendations to maintain soil tests at current levels

| Blockname | P | K | S | Ca | Mg | Na | Lime | Relative yield (%) |
|---------------------|------------|---|---|----|----|----|------|--------------------|
| | (kg/ha/yr) | | | | | | | |
| DOC | 12 | 0 | 0 | 13 | 0 | 0 | 40 | 77 |
| Pivot 1 | 22 | 0 | 0 | 0 | 0 | 0 | 80 | 89 |
| Pivot 2 | 22 | 0 | 0 | 0 | 0 | 0 | 70 | 89 |
| Pivot 3 | 22 | 0 | 0 | 0 | 0 | 0 | 70 | 89 |
| K Line | 18 | 0 | 0 | 0 | 0 | 0 | 90 | 89 |
| Dry Land Cultivated | 12 | 0 | 0 | 13 | 0 | 0 | 40 | 77 |
| Dry Land Improved | 12 | 0 | 0 | 13 | 0 | 0 | 40 | 77 |
| Grain | | | | | | | | |

It is recommended that a fertiliser company representative or farm consultant with experience in nutrient management is consulted for advice on the types of fertiliser and on the timing of application of fertilisers.

These rates are to maintain soil test values only. If soil test values are above optimum, then less than maintenance can be applied to allow soil test values to fall. Conversely, if soil tests are below those required to maintain target pasture production levels, then capital dressings may be required. In both cases, it is recommended that a fertiliser company representative is consulted.

Also note that experienced fertiliser company representatives may advise rates that differ from these results based on local experience.

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Block nitrogen report

For: Current farm

| Block name | N in drainage * (ppm) | N leached | N surplus (kg N/ha/yr) | Added N ** | % reduction in wetland |
|---------------------|--------------------------|-----------|---------------------------|------------|---------------------------|
| DOC | 1.4 | 4 | 38 | 0 | 0 |
| Pivot 1 | 1.9 | 9 | 130 | 120 | 0 |
| Pivot 2 | 1.9 | 9 | 132 | 120 | 0 |
| Pivot 3 | 1.5 | 8 | 98 | 74 | 0 |
| K Line | 1.7 | 8 | 120 | 74 | 0 |
| Dry Land Cultivated | 1.4 | 4 | 38 | 0 | 0 |
| Dry Land Improved | 1.4 | 4 | 38 | 0 | 0 |
| Grain | na | 5 | 18 | 80 | 0 |
| Overall farm | na | 6 | 63 | | |

* Estimated N concentration in drainage water at the bottom of the root zone. Maximum recommended level for drinking water is 11.3 ppm (note that this is not an environmental water quality standard).

** Sum of fertiliser and external factory effluent inputs.

na : N in drainage not calculated for easy and steep blocks.

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Block phosphorus report

For: Current farm

| Block name | P loss factors | | | | P lost (kg P/ha/yr) | % P removed by filter strip |
|---------------------|----------------|------------|----------|---------|------------------------|-----------------------------------|
| | Soil | Fertiliser | Effluent | Overall | | |
| DOC | Low | Low | n/a | Low | 0.0 | n/a |
| Pivot 1 | Low | Low | n/a | Low | 0.6 | n/a |
| Pivot 2 | Low | Low | n/a | Low | 0.6 | n/a |
| Pivot 3 | Low | Low | n/a | Low | 0.6 | n/a |
| K Line | Low | Low | n/a | Low | 0.6 | n/a |
| Dry Land Cultivated | Low | Low | n/a | Low | 0.0 | n/a |
| Dry Land Improved | Low | Low | n/a | Low | 0.0 | n/a |
| Grain | n/a | n/a | n/a | n/a | n/a | n/a |
| Overall farm | Low | Low | n/a | Low* | 0.3 * | |

* Includes P loss from ponds to waterways

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Block pasture report

For: Current farm

| Block name | On-farm fresh pasture intake (kg DM/ha/yr) | Estimated utilisation (%) | Supplements removed (kg DM/ha/yr) | Pasture growth (kg DM/ha/yr) |
|---------------------|--------------------------------------------------|---------------------------------|-----------------------------------------|------------------------------------|
| DOC | 3135 | 68 | 60 | 4685 |
| Pivot 1 | 5911 | 72 | 1110 | 9361 |
| Pivot 2 | 5593 | 68 | 1105 | 9357 |
| Pivot 3 | 5911 | 72 | 1113 | 9364 |
| K Line | 6271 | 68 | 122 | 9373 |
| Dry Land Cultivated | 3135 | 68 | 60 | 4685 |
| Dry Land Improved | 3135 | 68 | 60 | 4685 |
| Grain | 2602 | 70 | 117 | 3834 |

This report gives an estimated animal intake for each block based on animal production and supplements brought on to farm information supplied. Estimated annual pasture growth is shown for the animal utilisation value shown. Note: the model is not sensitive to changes in utilisation.

It is recommended that a consultant or software such as StockPol is used to estimate farm pasture production.

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