Shirohie Millet

_Echinochloa utilis / Echinochloa esculenta_

Shirohie millet is a fast growing, high yielding, leafy plant used for grazing, hay or silage. Millet provides a quick high quality feed and shows very good regrowth following grazing. They can be sown early allowing for quick feed soon after soil temperatures reach 14 °C. Shirohie millet provides good quality safe feed and is safe to graze at all stages of development.

- No toxicity issues safe to feed at all stages of development
- Fast growing and able to be sown early

**Seed agronomy table**

<table>
<thead>
<tr>
<th>Seeding Rate</th>
<th>Kg/Ha</th>
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<tbody>
<tr>
<td>Dryland</td>
<td>15-25</td>
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**Enterprises this seed is being used for**

- Sheep
- Beef Cattle
Horse
Hay & Silage

**Strengths**

- Annual Summer grass.
- Can be drilled into moist soil.
- Good emergence from depth, to 50 mm.
- Relatively easy to establish on black cracking-clay soils.
- Vigorous seedlings.
- High growth rate.
- Salt tolerant.
- Suitable for silage or hay.
- Does not contain prussic acid (HCN).

**Limitations**

- Needs moderate to high fertility.
- Sowing should occur once soil temps are >14°C and rising.
- Seedlings slow in early stage below 20°C.
- Intolerant of waterlogging.
- Does not tolerate frosts.

**Plant Description**

**Plant:** A robust, multi-stemmed annual grass.

**Stems:** Stems erect, 150-300 cm long, 10-20 mm diameter. Nodes are bearded and slightly swollen.

**Leaves:** Ligule is a fringe of hairs. Leaf-blades are flat, 50-100 cm long and 8-70 mm wide.

**Seedhead:** Seedhead is a compact, cylindrical spike-like panicle.

**Seeds:** Wedge-shaped seeds are 3-4 mm long and colour depends on variety. About 187,000 seeds/kg.

**Pasture type and use**

It is used as an annual summer forage crop for cattle or sheep.

**Where it grows**

**Rainfall:** Rainfall greater than 500 mm/year and soil moisture stored during fallow are
required for satisfactory forage crop production.

**Soils:** It is adapted to fertile loams to heavy cracking clays.

**Temperature:** It grows during the warm season and tops are killed by heavy frost.

**Establishment**

**Companion species:** Legumes: lablab, cowpea, red clover.

**Sowing/planting rates as single species:** 10-40 kg/ha.

**Sowing/planting rates in mixtures:** 3-7 kg/ha.

**Sowing time:** It is sown from spring to late summer.

**Fertiliser:** Fertiliser application of 15-20 kg/ha P, 50-100 kg/ha N and 50-100 kg/ha K, if grown for hay, may be used to produce satisfactory forage crops.

**Management**

**Maintenance fertiliser:** 100 kg N/ha after grazing will increase late season production.

**Grazing/cutting:** Millet should not be grazed until plants are well anchored, 20-30cm is the rule of thumb. Under ideal conditions this can be as quick as 6 weeks. Graze regularly to restrict plant from going to head. As plant matures feed quality reduces.

**Ability to spread:** There is little chance of spread.

**Weed potential:** It has negligible weed potential.

**Major pests:** Helicoverpa spp. can damage developing heads and should be controlled in seed crops.

**Major diseases:** Head mould and ergot can reduce seed yield.

**Herbicide susceptibility:** It is killed by glyphosate.

**Animal production**

**Feeding value:** Forage quality depends on soil type and fertility, fertilisers applied, rainfall and age of the crop.

**Palatability:** Reduced palatability is sometimes observed in droughted crops.
Livestock disorders/toxicity: No known problems except unpalatability in some droughted crops.

International Contact

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