Rape, Radish and Hybrid rape

Scientific name(s)

*Brassica napus* var. *napus* - rape  
*Raphanus sativus* - radish  
*“Hybrid rapes” represent various* *Brassica interspecific crosses*

**Strengths**

- Vigorous summer growing fodder crop with excellent feeding value; high leaf:stem.

**Limitations**

- Sensitive to several common insect pests

**Plant description**

- **Plant:** leafy, plant 0.6-1.2 m tall; deep tap root, no bulb. Some varieties regrow to allow 1-3 repeat grazings
- **Leaves:** large, flat leaves, 30-50 cm long and 20-40 cm wide; yellow, cross-shaped flowers with four petals; and all produce sickle shaped pods containing tiny round seeds.
- **Seedhead:** yellow, cross-shaped flowers with four petals; produce sickle shaped pods
- **Seeds:** pods contain tiny round seeds

**Pasture type and use**

Sown in spring adjacent to a run-off pasture to provide summer grazing in ~3 months time. Often used to provide weed control and soil preparation prior to renovating with perennial pasture. Also useful as a break crop after cereal.

**Where it grows**

- **Rainfall:** >600 mm or irrigation
- **Soils:** Tolerates a broad pH range. Rape is more tolerant of low soil fertility than other Brassica fodder species. Ensure MO and B not deficient.
- **Temperature:** Some varieties are well able to withstand heavy frost and retain leaf.

**Establishment**

- **Companion species**
  - **Herbs:** plantain, chicory
  - **Legumes:** white clover, red clover
- **Sowing/planting rates as single species**
3-4 kg/ha. Sow shallow (5-10 mm) in a finely worked firm, moist seedbed, cover with roller/mesh. Suitable for direct-drilling

**Sowing/planting rates in mixtures**

1-2 kg/ha

**Sowing time**

From August through spring

**Inoculation**

Not applicable

**Fertiliser**

Sow with ~20 kg P/ha as triple super or MAP/DAP. Ensure molybdenum and boron adequate. Molybdenum coated seed is available.

**Management**

**Maintenance fertiliser**

Nitrogen (50 kg N/ha) maybe applied at 4 weeks.

**Grazing/cutting**

Graze when mature at 10-13 weeks-depending on cultivar; repeat grazings after a month's recovery. Where yield is high it is usually strip-grazed by dairy cattle along a long front - to minimize trampling losses. A back fence may maximise regrowth. Use a maximum 33% of rape in the diet of dairy cows - 100% OK for lambs. Beef cattle OK up to 70%. Crops thin after each grazing. Allow access to pasture/stubble, hay/silage for fibre.

**Seed production**

- 

**Ability to spread**

- 

**Weed potential**

- 

**Major pests**

Red-legged earth mite, slugs, Aphis, cabbage moth, cabbage white butterfly, diamond black moth, cutworms, lucerne flea, wingless grasshoppers and leafminers. Insecticide coated seed is available to aid establishment.

**Major diseases**

Rarely a problem. Varieties tolerant of clubroot and dry rot are available. Fungicide treated seed is available to protect damping off of seedlings. Susceptible to some viruses

**Herbicide susceptibility**

Glyphosate

**Animal production**

**Feeding value**

Excellent - low fibre is associated with a high rate of digestion which facilitates a high intake. ME approx 12 MJ/kg DM.

**Palatability**

Readily acceptable

**Production potential**
Up to 10 t DM/ha where moisture is available and soil fertility is good.

**Livestock disorders/toxicity**

Vaccinate and drench before grazing stock on Brassica. Monitor stock frequently. Scouring, nitrate poisoning (especially if molybdenum is deficient and/or if overcast conditions prevail), red water and photosensitisation/rape scald may occur if grazed while immature. Avoid sudden and unrestricted access; do not provide Brassica crops as the sole ration straight off scarce/low quality pasture. Begin 1-2 hr access daily and take 7-10 days before reach maximum allowance.

### Cultivars

<table>
<thead>
<tr>
<th>Group</th>
<th>Cultivar</th>
<th>Seed source/Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>early</td>
<td>EMX 1.6</td>
<td>Wrightson Seeds</td>
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<tr>
<td></td>
<td>Leafmore</td>
<td>PlantTech AusWest Seeds</td>
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<tr>
<td>mid</td>
<td>Maxima Plus</td>
<td>Wrightson Seeds Stephen Pasture Seeds</td>
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<tr>
<td></td>
<td>Pulsar</td>
<td>?? check link</td>
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<tr>
<td></td>
<td>Hobson</td>
<td>AusWest Seeds</td>
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<tr>
<td></td>
<td>Striker</td>
<td>AusWest Seeds</td>
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<tr>
<td>late</td>
<td>Giant Emerald</td>
<td>Stephen Pasture Seeds</td>
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<tr>
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<td>Bonar</td>
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<td></td>
<td>Rangi</td>
<td>AusWest Seeds</td>
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<td>Spata</td>
<td>Seed Force NZ</td>
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<tr>
<td></td>
<td>Goliath</td>
<td>Wrightson Seeds AusWest Seeds</td>
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<tr>
<td></td>
<td>Greenland</td>
<td>Seed Force NZ</td>
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<table>
<thead>
<tr>
<th>Type</th>
<th>Maturity</th>
<th>&quot;Hybrid rape&quot; Cultivar</th>
<th>Seed source/Information</th>
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</thead>
<tbody>
<tr>
<td>Turnip (4n) x an Asiatic leaf vegetable</td>
<td>very early</td>
<td>Hunter (T4nxCC)</td>
<td>PGG Seeds</td>
</tr>
<tr>
<td>Radish, <em>Raphanus sativus</em></td>
<td></td>
<td>Graza (T4nxCC)</td>
<td>PGG Seeds</td>
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<tr>
<td>Turnip x Kale</td>
<td>early</td>
<td>Winfred</td>
<td>PGG Seeds</td>
</tr>
<tr>
<td>Turnip (4n) x an Asiatic leaf vegetable</td>
<td></td>
<td>Pasja (T4nxCC)</td>
<td>Wrightson Seeds</td>
</tr>
</tbody>
</table>

\(\text{\dag}\) Denotes that this variety is protected by Plant Breeder's Rights Australia

### Further information

Pasture and forage brassica management
Species for profit: a guide for Tasmanian Pastures and Field Crops

### Acknowledgements

Seed Companies, DPIs

### Author and date

K Reed
3rd December 2008