Triticale: planting guide

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The Seed Professionals

Soil type

Triticale is suited to all soil types but has a significant yield advantage over wheat and barley when grown in a number of problem soil situations including:

- Acidic soils (pH less than 4.5_{CaCl_2}) which are high in aluminium (greater than 10% of the total cations) e.g. southern NSW, north east Vic, WA.
- Alkaline soils e.g. SA
- Waterlogged conditions e.g. north coast NSW

Photo: Di Holding

Variety choice

There are two types of triticale to choose from—grain only and dual purpose. Grain only varieties perform best in long-season environments rather than lower rainfall regions with unreliable springs.

Dual purpose varieties can be sown very early, grazed during winter then shut up for forage conservation or grain recovery.

When choosing a variety consider:

- Purpose of variety—grain and/or graze
- Yield in your environment
- Resistance to current strains of rust
- Straw strength
- Maturity.

See **Triticale: variety guide** for up to date information and consult your local agronomist.

Fungicide on seed

Fungicide seed dressings are used to protect the triticale crop from seed borne disease such as loose smut. This treatment should form an integral part of the triticale disease management program and will vary with variety and sowing time. Seek local advice.

Sowing time

Optimum time of sowing depends largely on the variety being grown (see Table 1).

Long season varieties, such as Endeavour and Tobruk, can be sown as early as mid February if seasonal conditions (ie rainfall) allows. Tobruk should only be sown this early if it is going to be grazed. Main season varieties such as the traditional Tahara, and Berkshire should be sown at the same time as main season wheat, during May and early June.

Table 1 Suggested sowing times for triticale

Variety	Feb		March				April				May				June				Jul	
	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2
Endeavour	▷	▲	▲	▲	▲	▲	▲	▲	◁	◁										
Tobruk		▷	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	◁					
Berkshire Bogong Hawkeye Jaywick											▷	▲	▲	▲	▲	▲	◁			
Chopper												▷	▷	▲	▲	▲	▲	▲	◁	◁

▷ earlier than ideal but acceptable; ▲ optimum sowing time; ◁ later than ideal but acceptable, yield loss likely

Plant population

Triticale sown for grazing should be sown at a seeding rate to obtain 150 plants per m^2, which is the same as grazing wheat. Grain only triticale target population can be reduced to 100 to 120 plants per m^2 as for main season grain only wheat.

It is best to calculate the seeding rate using target plant population, germination percentage and seed count per kilogram, both available on the Seed Analysis Certificate which is available on request when you purchase the seed.

When sowing triticale as a cover crop (i.e. undersown with pasture) reduce seeding rate to approximately 10 to 20% of normal, targeting 15—30 plants per m^2.

Fertiliser

A productive triticale will require application of phosphorous (P) and nitrogen (N) at sowing. Additional nitrogen is likely to be required for maximum dry matter production for grazing and grain yield, particularly if the crop has been grazed.

Consider applying 15—20 kg P per ha at sowing. This is equivalent to 75—100 kg MAP per ha which will also include 7.5—10 kg N per ha. A triticale used for grazing as well as grain production will require significant N.

Each tonne of triticale harvested will remove approximately 23 kg N per ha from the paddock. So if you are targeting 3 t per ha then a minimum of 69 kg N per ha should be applied just to cover removal. If grazing is also included or soil nitrogen levels are low, additional N should be applied.

Application can be split between sowing and top-dressing post-grazing or during stem elongation stage (soon after Zadoks 31).

Paddocks with a history of legume dominant pasture or a pulse crop (e.g. lupins, field peas) tend to have a higher N status than those with a history of grassy pasture or cereal and canola crops and will not need as much applied N.

Weed management

Triticale has been shown to be more competitive against annual ryegrass than wheat, however a sound weed control program must be implemented to avoid a blow-out in weed seed numbers and to optimise yield.

It is vital to control weeds early in the crop's growth. Once the crop grows it then becomes more competitive.

Ideally a non-selective knockdown should be used when sowing main season varieties to reduce the reliance on post-emergent herbicides.

Photo: Di Holding

There are numerous herbicide options for early post-emergent and late post-emergent control of broadleaf weeds, however there are only early-post emergent control options for grass weeds.

When sowing dual purpose varieties early, choose a paddock with low weed numbers and control weeds prior to the first grazing. Strategic grazing can be used to help manage weeds. Always check grazing withholding periods before you apply post-emergent herbicides when planning to graze the crop.

Under-sowing lucerne

Triticale has been used to under-sow perennial pasture, in particular lucerne. When under-sowing:

- Use a grain only variety with the earliest available maturity suited to your region
- Sow the triticale at lower seeding rate than used for optimising grain yield
- Choose a paddock with low weed numbers as the combination of species can dramatically reduce herbicide options
- Expect a reduction in grain yield.

Further information

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