KEY BENEFITS
• Advanced AT gives producers with high acidity soils a productive & persistent pasture option that has not previously been available.
• Advanced AT will increase productivity on high acid soil with aluminium, although due to its broad breeding background will also produce well in soils with a pH above 4.0.

DESCRIPTION
Advanced AT (Phalaris aquatica) was developed by the CSIRO and is a semi erect, winter active variety which forms thick, dense tufts of wide blue/green leaves that are very palatable to sheep and cattle. It has a low level of summer dormancy so it can respond and take advantage of any summer rainfall should it occur. Advanced AT is morphologically similar to the winter active cultivar Holdfast, but was selected for its superior performance in shallow, strongly acidic and infertile soils which have layers in the top 50cm of pH<4.2 measured in CaCl2.

Nutrient solution studies have shown that Advanced AT is the most AI-tolerant of all the Australian bred phalaris cultivars. Field studies show a particular advantage in establishment on strongly acid soils in years with a dry spring. Advanced AT strong seedling vigour makes it a variety that is easy to establish quickly. This is very important for stand management should there be a high level of weed competition. Once established, Advanced AT will be able to handle periods of waterlogging and inundation. The biggest advantage of Advanced AT’s is its ability to grow in more highly acidic conditions and lower quality soil compared to other phalaris varieties currently available. Advanced AT will extend the range of pasture species available, to help combat soil degradation.

Another major benefit of the plants deep roots system is it makes Advanced AT very persistent under drought conditions. It is also useful in reducing recharge zones and helps prevent dryland salinity. Advanced AT does have a higher crown than Holdfast GT so must be rotationally grazed to ensure long term persistence.

DISEASE RESISTANCE / TOLERANCE
Disease issues are very rare amongst established stands of Phalaris.
PEST RESISTANCE
Phalaris pastures can be seriously damaged by Blue Oat Mites (*Penthaleus major*), Red Legged Earth Mites (*Halotydeus destructor*), Field Crickets (*Teleogryllus commodus*), Pasture Scarabs (*Seriecsthis spp.*), Slugs and Snails. Appropriate management of these insects is vital for successful stands, particularly during the establishment period.

VARIETY MANAGEMENT / AGRONOMY
Grazing of new sown pasture should be avoided until plants have established themselves. Grazing plants too early can mean that plants are pulled out and thus reducing the plant population. Many of the older Phalaris varieties have high levels of Alkaloids, which can cause Phalaris staggers. Newer developed varieties such as Advanced AT contain lower levels of Alkaloids in the leaves and therefore provide a safer grazing alternative. However in areas prone to Phalaris poisoning, plants should be grazed cautiously in the autumn and early winter. Advanced AT can be grown with other legume or grass species, to help reduce the risk of illness. Phalaris toxicity, or Phalaris staggers can affect sheep that are grazing on fresh breaks of phalaris. Stock are at the greatest risk of illness when grazing on short, frosted plants; which mainly occur during the autumn or early winter period. To counteract this potential problem, stock can be orally administered with Cobalt bullets and also by ensuring that stock are not hungry when introduced to lush, green feed. The greatest risk of animals dying or becoming ill is when they are able to ingest a high level of toxic herbage quickly. Toxicity levels in the plant can also increase if plants are subject to various stresses such as drought and frost.

Once stands are established, it is recommended that you follow the following points to maximise the benefits and persistence from your Phalaris stands:

- Lime acid surface soils if CaCl2 extractable Al is 10+ppm
- Sow Advanced AT rather than any other cultivar if Al marginal
- Apply superphosphate if Olsen P is 8 ppm or less
- Graze winter active cultivars rotationally with 4-6 week spells in autumn - winter
- For improved persistance allow some heading especially in drier areas
- Do not heavily graze new stems from summer regrowth.
- Clean up stem residues in summer to increase clover germination and growth