Pasture establishment — know before you sow

New pastures are critical for increasing farm productivity. Not only can new pastures support higher stocking rates (and kilograms of product per hectare), but they provide insurance when times get tough, through improved persistence and dry matter production compared with older pasture varieties.

However — to get the best from any new pastures, appropriate species and cultivar (variety) selection are critical. It is also important to ensure you get what you pay for in terms of variety and seed quality.

Know your paddock
Planning is the key to the success of any new pasture. Before choosing your species and cultivar, get to know your paddock.

Carry out regular soil tests to ensure you understand the fertility status and soil conditions across your paddocks. Different pasture species and cultivars thrive under different soil environments. The more you know about your soils, the better placed you are to make informed decisions about species and management.

Know your system
The key to profitable pastures is the right plant, in the right place for the right purpose under the right management.

Knowing the purpose of the pasture will help ensure you choose a pasture type that is likely to help you achieve your goals. For example, do you want a short-term option for fattening stock, a permanent pasture for year-round maintenance or a fodder, hay or silage crop?

These decisions will help you decide between an annual (survives for one year), biennial or short-term (survives for 2–3 years) or perennial (permanent) species.

If you operate a mixed farming enterprise, a short-term legume species, such as red clover, could be better suited to high-intensity cropping rotations.

Legumes are beneficial for grazing stock, but also provide valuable nitrogen to the soil, which in turn provides better growth of grasses or cereal crops.

Be mindful of your livestock species and grazing system; some pastures better suit cattle vs sheep and persistence can vary greatly between species under set stocking vs rotational grazing. Also consider if you are likely to use the pasture for hay or silage production.

Smart from the start: Before establishing a new pasture it is critical to have a solid understanding of the environment in which your pasture will grow, the requirements of the enterprise it will support and its fit within the whole farming system. (Photo: Catriona Nicholls)

Know your pastures

New pastures can support higher stocking rates (and kilograms of product per hectare) and provide insurance when times get tough, through improved persistence and dry matter production (kg/had DM) compared with older pasture varieties.

Pastures for productivity: Understanding your enterprise goals and demands will help you to select pastures that match your needs and the needs of your business. (Photo: Catriona Nicholls)
However, to get the best from any new pastures, appropriate species and cultivar (variety) selection are critical.

To select the best pasture type for your location and enterprise, consider:

- **place:**
  - soil conditions (soil type, pH, fertility, salt levels)
  - water availability (seasonal rainfall, irrigation)
  - annual or perennial species

- **purpose:**
  - stock type (sheep, cattle or other)
  - short or long-term pasture
  - fattening stock or winter production

- **management:**
  - rotational grazing, set stocking.

For more information on suitable species selection go to the EverGraze website or talk to your agronomist.

### Choosing a variety

Having selected a suitable species there is still a bewildering array of choices in terms of varieties.

Several tools are available to assist with this choice. For example, the ASF has recently released the Pasture Seed Products Database. The database lists all commercially-available pasture seed products by species and the intellectual property, marketing and varietal status of the various seeds nominated by their Australian marketer.

One of the major benefits of the database is that it identifies which pasture products are ‘varieties’ and which are branded seed products.

### Know about seed quality

Seed is one of the most important inputs into any pasture system. After deciding which species and variety best suits your needs, it is important to ensure the seed you buy is ‘true to type’ and of high quality.

Seed quality must be assessed carefully to ensure you get value for money, and do not introduce any weeds with the seed.

You cannot accurately assess quality by merely looking at the seed. Seed may appear clean and healthy, but can contain weed seeds and have low germination potential.

Most seed of the same species looks identical, so you cannot be sure of the variety you are purchasing unless it is certified or quality-assured seed.

Always ask for the Statement of Seed Analysis for any seed before you buy.

For more information on what constitutes ‘good seed quality’ download the ‘Understanding seed quality’ factsheet from the EverGraze website or talk to your agronomist.

### Variety vs brand

Anybody can ‘brand’ a bag of seed and make a claim about its performance, but to have confidence in those claims consumers need to know it is a ‘variety’.

Implicit in the definition of variety is a substantiated capacity to consistently deliver the described genetic characteristics of the pasture seed product.

To qualify as a variety, internationally agreed scientific procedures must be followed in order to demonstrate the new variety has the genetic stability and uniformity to deliver the benefits claimed and can do so over successive generations.

### National code of practice

The National Code of Practice for Labelling and Marketing of Seed for Sowing aims to ensure you have consistent and accurate information to make informed decisions about the suitability of seed for sowing. This Code applies throughout Australia. The Code was developed by the seed industry and sets out the:

- information required on the label, and
- acceptable conduct for marketing and dealing with performance claims about a variety.

All members of the Australian Seed Federation (ASF) abide by the Code of Practice. At a minimum, this ensures the label contains essential information about the species, chemical/additive/biological treatments and the availability of statement of seed analysis. In addition the code sets out acceptable conduct for marketing and dealing with performance claims about a variety. A list of ASF members and a copy of the Code can be found on the ASF website.

### Know your rights

Always purchase seed from a reputable source to ensure you do not infringe Plant Breeder’s Rights (PBR).

Plant breeder’s rights are exclusive commercial rights for a registered variety of plant. The rights are a form of intellectual property (IP), like patents and trade marks, and are administered under the Plant Breeder’s Rights Act 1994.

If you buy PBR protected seed, ensure you are buy from a seed seller licensed to sell that particular variety.

There are no restrictions on using that particular batch of seed on your farm, except you are not permitted to produce propagating seed to resell unless you are licensed to do so. Generally, the use of plant material produced by that seed (for example hay) is also free provided it is not sold or conditioned as propagating material or contains propagating material exported to countries where PBR protection is not available. This means producers cannot sell/trade/barter/gift seed between themselves.

If in doubt, you should approach the PBR grantee and determine whether their authorisation is required. Varieties covered by PBR and the PBR grantee are available on the IP Australia website.

Please be aware that ignorance of the law is not a defence against legal action.

For more information about PBR download the ‘Understanding Plant Breeders’ Rights (PBR)’ factsheet from the Pasture Improvement Initiative website.

This PII snapshot was developed in conjunction with the Australian Seed Federation (ASF) to provide a quick overview of the key considerations when selecting pasture species, variety and seed to establish a new pasture.

### FURTHER INFORMATION

More information about selecting a suitable pasture species can be found in the EverGraze exchange — Selecting Pastures for Place and Purpose.

The ASF Pasture Seed Products Database can be found on the ASF website.