

Feed cost calculator instructions

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The 'Feed cost calculator' is an Internet-based program that can be used to compare the value of feeds on an **energy** and **crude protein** basis. The user selects a range of common feeds and is then provided with estimated values for energy, protein and dry matter. The user is encouraged to change these values if they have obtained their own feed test values. The user is able to enter a price per tonne for up to four different feeds. The program then calculates the value of the feed on an energy and crude protein basis.

The user can also examine the energy, protein and cost results of any combination of up to four selected feeds.

Chemical residues

Some supplementary feeds may contain chemical residues. For details on the maximum residue limits and the dangers, particularly during drought, NSW farmers should check the publication Primefact 312 *Drought increases residue risks*

System requirements

To use the calculator, your web browser (Internet Explorer or Netscape) needs to be Version 4 or higher. It also needs to have 'Javascript' enabled (also called 'active scripting'). If the calculator does not appear to work correctly, you may need to check the settings on your browser.

Using the model

Entering data

1. Click on the **category button** under Feed 1 and select the category your first feed would best fit under. Category choices are:
 - grains
 - grain by-products

- protein-rich meals
- hays
- straws/stubble
- miscellaneous.

2. Click on the **'select feed' button** and select the appropriate feed from the range. When you have selected a feed, an estimated value for **dry matter, energy** and **crude protein** will be presented. These values are a guide only and can be adjusted if you have your own information.
3. If the desired feed is not on the list, and you require some estimate values to work from, go to our [feed evaluation database](http://www.agric.nsw.gov.au/tools/fes/index.html) www.agric.nsw.gov.au/tools/fes/index.html and obtain results of tests that were carried out by the feed testing service.
4. Follow the same procedure for any other feeds you wish to examine (up to a total of four feeds).
5. Enter the amount for the cost in \$ per tonne (on farm).
6. Press the **'calculate' button** to derive estimates for the cost of feed in \$ per tonne of dry matter, cents per MJ of energy and \$ per kg of protein. (The program works with any decimal currency, of course.)
7. The next part of the calculator is the **'Feed mixes'** section. The combined results for a mix of feeds can be obtained by specifying the percentage of each feed in the mix and clicking the 'calculate' button. This calculation can provide you with the desired mix of energy and protein for various classes of beef cattle.
8. If you wish to clear data and start again, click the appropriate **'clear' button**.

How the measures are calculated

The value of a feed in terms of **energy** is best compared on a 'cents per MJ of energy' basis.

See [buying feed at the right price](http://www.dpi.nsw.gov.au/agriculture/livestock/nutri)

<http://www.dpi.nsw.gov.au/agriculture/livestock/nutri>



tion/values for details.

The value of a feed in terms of **protein** has been calculated on a similar basis using the cost per protein unit, measured as % crude protein.

Using the results

The key measures to examine will depend on the purpose of the supplementary feed. If the feed is purely to **maintain livestock weight** through a drought period, energy will be most important. See the [supplementary feeding principles](#) <http://www.dpi.nsw.gov.au/agriculture/livestock/beef/feed> for more detail.

When feeding for **weight gain**, the levels of energy and protein are important, especially with young animals. For more information, see the publication [opportunity lotfeeding of beef cattle](#) [http://www.dpi.nsw.gov.au/agriculture/livestock/beef/feed/publications/lotfeeding or opportunity feedlotting of lambs](http://www.dpi.nsw.gov.au/agriculture/livestock/beef/feed/publications/lotfeeding%20or%20opportunity%20feedlotting%20of%20lambs) <http://www.dpi.nsw.gov.au/agriculture/livestock/sheep/feeding-and-nutrition>

Feed tests recommended

Use of the model will quickly show how sensitive the feeds are to the estimates of dry matter, protein and energy. It is strongly recommended that you have your feed tested so that the best-value feed is determined and also so you can more accurately assess animal performance. [Feed testing services](#) are available from <http://www.dpi.nsw.gov.au/aboutus/services/das/feed-quality-service>

These services are available from the: NSW Department of Primary Industries (NSW DPI) Feed Quality Service at Wagga Wagga, phone 02 6938 1957 or 1800 675 623– the following information and forms (available from the above website) will help with your feed sample submission:

- Collecting feed samples (PDF file)
- Interpreting the feed analysis report (PDF file)
- Feed sample submission form (PDF file).

Other information on feed quality

Accessing information on the likely quality of other feeds can be obtained by accessing our [feed evaluation database](#). www.dpi.nsw.gov.au/tools/fes/index.html

Warnings

Residue risk

Purchased feeds can be a source of chemical residues, particularly feeds from summer crops.

Our export and domestic markets are demanding residue-free produce. See the section below on vendor declarations.

For more information, see Primefact 315 [Buying stock feeds – minimising chemical residue risks](#) <http://www.dpi.nsw.gov.au/agriculture/livestock/residues/buying-stockfeeds>

Energy and protein variations

All feeds have the potential to vary in energy and protein. However, feeds such as mill mix, oat bran, rice pollard, wheat bran, and sheep/cow nuts can be sourced from a range of different feedstuffs, and can vary considerably. The use of a feed test is recommended, especially for large purchases.

Roughage value only

These feeds are low in both protein and energy, and will not sustain animals if the feed is the sole source of nutrition. They may have a role when fed as a mix with other better-quality feeds.

Not recommended

Feeds such as sunflower hulls, oat hulls, rice hulls and peanut hulls are low in nutritive value and can be abrasive to the oesophagus.

Urea can be toxic

Urea can be useful when there is a good supply of energy but protein is limiting. However, urea can be toxic to animals if fed in excessive quantities.

For **cattle**, consumption of urea should generally be limited to 60 g/head per day; otherwise toxicity can result.

For **sheep**, concentrations above 2% are likely to depress diet intake and can cause toxicity. For further information, see the Primefact 272 [Urea roller drum mixes for cattle](#).

Grain poisoning

Grain poisoning can occur especially when stock are unaccustomed to eating grain. For more details see the publication Primefact 330 [Grain poisoning of cattle and sheep](#) <http://www.dpi.nsw.gov.au/agriculture/livestock/nutrition/problems>

Vendor declarations

Vendor declarations should be requested of the seller of all bought-in stockfeeds. Quality assurance programs such as Cattlecare and Flockcare require you to record all stockfeeds either brought onto the farm, or made on the farm, and to record their feedout history.

Vendor declarations assist in the traceability of stockfeed use, and minimise the risks of chemical residues in meat and offals.

Always inform the seller of the use you intend to make of the stockfeed you are wanting to buy. Record your statement and the seller's response, and be sure to date and sign the record. If the feed supplier will not sign a vendor declaration, it is still important to record the seller's response if you still choose to buy the stockfeed.

Livestock fodder declaration forms are available from [Meat and Livestock Australia \(MLA\)](http://www.mla.com.au) from www.mla.com.au

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Check for updates of this Primefact at:

www.dpi.nsw.gov.au/primefacts

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (January 2007). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of New South Wales Department of Primary Industries or the user's independent adviser.

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