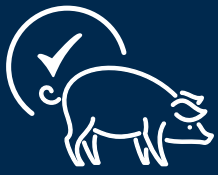




Feeding sprouted wheat to pigs and poultry



Feed value of sprouted wheat for pigs and poultry

- ✓ **Sprouted wheat** is equivalent to unsprouted wheat in nutritional value for pigs and poultry, unless there is extensive sprouting.
- ✓ **If the grain is 'sprung'** with a swollen seed gusset but no shoot, the hydrolysis is underway but there is no nutrient loss from the seed.
- ✓ **Animals convert starch** to glucose by hydrolysis, therefore pre-hydrolysis could be seen as an advantage (palatability, digestibility).
- ✓ **In most instances, sprouted wheat** can be used freely as a stockfeed component as long as all the standard quality parameters are in place.

Sprouted grains are not eligible for milling grade premiums, therefore they are discounted to feed grade. This presents customers with an opportunity to buy wheat with good nutritional value at competitive prices.



What is sprouted wheat?

Wheat kernels may sprout (germinate) if exposed to wet conditions just before or during harvest.

Wheat kernels pass through stages of germination (early to advanced).

Sprouted wheat kernels should not be infected with moulds.



Wheat kernels at various stages of germination
(Source: Dr. J Barrero, CSIRO)



Mouldy wheat kernels





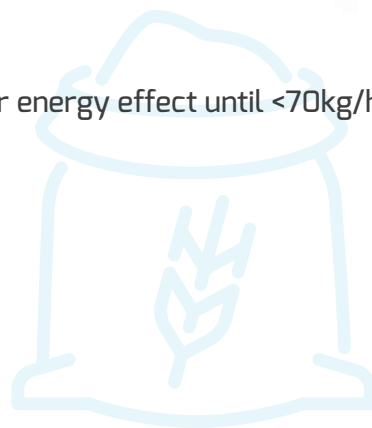
Feeding sprouted wheat to pigs and poultry



- Moisture levels high enough to induce germination may also increase the risk of moulds and mycotoxins.
- Normal moisture receival standards need to be observed (<12.5%) or the grain will not store well. Once the moisture comes down to this level, sprouting stops.
- The reduced starch integrity may influence pelleting characteristics, however this is of minor consequence.

Quality assurance measures

- Moisture: <12.5%
- Test Weight: preferably 75+ kg/hl (however minor energy effect until <70kg/hl)
- Protein:
 - normal KJELDAHL N test
 - AA values proportional to protein
 - SID values as per normal wheat
- Energy – AUSSCAN NIR assay.
- Mycotoxins – Free or within tolerance ranges.
- Falling Number – of no relevance.



Department of
Primary Industries and
Regional Development



GRDC
GRAINS RESEARCH
& DEVELOPMENT
CORPORATION

AEGIC is an initiative of the Western Australian State Government and Australia's Grains Research and Development Corporation

Australian Export Grains Innovation Centre

Perth (head office)

3 Baron-Hay Court
South Perth, WA 6151, Australia
P +61 (08) 6168 9900
E admin@aegic.org.au

Sydney

1 Rivett Road, Riverside Corporate Park
North Ryde, NSW 2113, Australia
P +61 (02) 8025 3200

All contents copyright © AEGIC. All rights reserved. The related bodies corporate, directors and employees of AEGIC accept no liability whatsoever for any injury, loss, claim, damage, incidental or consequential damage, arising out of, or in any way connected with, the use of any information, or any, error, omission or defect in the information contained in this publication. Whilst every care has been taken in the preparation of this publication AEGIC accepts no liability for the accuracy of the information supplied.

aegic.org.au



Australian Export Grains Innovation Centre