



Benefits of biodiversity - meat industry

The following table outlines a number of research facts that are directly related to the meat industry. If further information is required, refer to the cited scientific paper reference.

WINDBREAKS	
Protected areas of a farm have a 20-30% higher yield than unprotected areas, with annual benefits of \$38 to \$66 per hectare.	Fitzpatrick, D., (1994). <i>Money Trees on Your Property: profit gained through trees and how to grow them</i> . Inkata, Sydney.
Cold stress reduces live-weight gain in cattle by 31% over several weeks.	Anderson, G., (1986). <i>The Effects of Trees on Crop and Animal Production</i> . Trees and Natural Resources, Vol 28. No 4.
SHADE	
Heat stress can markedly reduce stock fertility, milk production, weight gain, and increase mortality of calves and sheep.	Cremer, K.W., (ed). (1990). <i>Trees for Rural Australia</i> . Inkata Press, Sydney.
Heat stress may cause abortion and certainly causes calves to be born undersized and consequently more susceptible to heat stress.	Cremer, K.W., (ed). (1990). <i>Trees for Rural Australia</i> . Inkata Press, Sydney.
Shorthorn cows resting in shade continue to chew their cud whereas cows in the sun abstain. Because rumination increases the heat produced, heat-stressed stock abstain so as to reduce metabolic heat production. After grazing, chewing cud is the second most important activity of cattle, so abstaining directly affects productivity.	Cremer, K.W., (ed). (1990). <i>Trees for Rural Australia</i> . Inkata Press, Sydney.



PASTURE GROWTH	
Sheltered pastures lose 12mm of water less than open pastures during the spring growing season (Armidale NSW).	Siepen, G., (1983). <i>Trees for Farms</i> . NSW National Parks & Wildlife Service, Sydney.
Protected areas of a farm have a 20% increase (estimated) in average annual pasture growth.	Radcliffe, J.E., (1983). <i>Grassland Responses to Shelter - a review</i> . New Zealand Journal of Experimental Agriculture 11: 5-10.
Gross value of pasture output is at its highest level when the proportion of tree (i.e.: natural remnants) area on a farm is at 34% (Gunnedah, North West NSW).	Walpole, S.C., (1998). <i>Catchment Benefits of Remnant Native Vegetation Conservation</i> . Charles Sturt University, Johnston Centre, Albury.
STOCKING RATES	
Lighter stocking of native grasslands showed benefits in terms of improved livestock performance, reduced drought costs and changed farm overhead costs. On farm benefits are expected to almost outweigh the direct effect of the reduction in sheep numbers.	Crosthwaite, J., and Malcolm, B., (1998). <i>An Economic Analysis of Native Pasture in the Hills and Tablelands of South-eastern Australia</i> . Institute of Land and Food Resources. University of Melbourne, Melbourne.