



# Food Animal Initiative

ENVIRONMENTS FIT FOR ANIMALS FIT FOR THEIR ENVIRONMENT

## FAI 4 Overview Cattle Development - August 2005

### Physical data

- Herd of 120 spring calving sucklers, established from autumn 2001, calves weaned at 8-10 months and indoor finished.
- Salers and Salers X are used as this female line is easy calving, has good maternal abilities and is an excellent forager.
- Currently we have 3 Salers bulls one of which is polled. They are never housed individually, always with company.
- The herd is run in 3 separate groups and the target is to keep these as families for breeding and welfare purposes.
- The herd is only viable post decoupling producing with environmental and SFP payments attributed.
- A polled bull from the herd gained reserve champion at the Great Yorkshire show competing against horned animals.

The ground at FAI Oxford is not suitable for keeping cattle outdoors all year round as it is heavy and often floods during the winter. In contrast to public perception most cattle spend a significant proportion of their lives indoors and one of our studies is concentrating on how we provide for the needs of cattle indoors in order to provide for their good welfare.

### FAI Projects

### '.....Results so far'

1. Provision of dietary fibre for finishing cattle to enable normal gut function. (See TDS C2, <b>Total mixed ration feeding for ruminants</b> and TDS G7 <b>High fibre feed and human health</b> ).	Growth rates are comparable to top commercial cattle production and forage:grain levels of 3:2 by weight have been found not to compromise growth rates (see item 1 below).
2. Dry lying areas for yarded cattle. (See TDS C3, <b>Woodchip yards for cattle</b> ).	Management of the woodchip yards can be maintained through all weathers. Run off must be contained to prevent potential pollution incidents.
3. Dehorning and disbudding. (See TDS C1, <b>Horns and cattle</b> )	Polled genetics have proven no drop in production compared to horned animals. Caustic paste for disbudding works well as long as undertaken in dry conditions.
4. Provision for easy weaning of cows and calves in indoor systems. (See TDS G6, <b>Easy weaning systems for farm animals</b> ).	Stress at weaning has been reduced for cows, calves and stockpersons by allowing weaning to be undertaken as a three stage process.
5. Mixing of cattle. (See TDS G2, <b>The importance of maintaining animals in peer groups</b> ).	Where finishing cattle are maintained in their groups' weight gain curves are minimally affected.
6. Respiratory disease in housed cattle. (See TDS G4 <b>Reducing antibiotic use in farm animals</b> ).	Respiratory disease at FAI is below national average figures. (See TDS C4 <b>The reduction of antibiotic use in cattle through respiratory disease management</b> ).
7. Improvements in eating quality of beef through food chain integration. (See TDS G5 <b>Disease reduction through improved immune competence</b> ).	Bulls are consistently finished under 16 months where growth checks are prevented through reducing stress.
8. The influence on beef production of subsidy changes from production to direct payment 2005. (See TDS C5 <b>Beef costs of production after decoupling</b> ).	Beef production does not 'work' commercially unless environmental and SFP payments are attributed to the enterprise and prices are maintained at 2004 levels.

### Further developments for 2006

1. Cattle are currently bedded up twice weekly this being their source of long fibre for rumen function. Forage:grain intakes of 6:1 by weight will be studied this winter with regard to growth rates and finishing. Forage is often the cheapest source of protein and energy and has been shown to produce healthy eating meat containing omega-3s.
2. Tom Shaw is completing a PhD funded by the MLC and will produce a simple computer model which will allow farmers to make best use of cattle building for most efficient beef production.

### Priority for the future

- To obtain funding to look at ways of reducing the incidence of E.coli O157 H7 in cattle at slaughter and also of increasing the omega-3:omega-6 ratio to improve human health. Studies of cattle from various finishing systems show that levels of E.coli O157 H7 are lowest in animals under least stress and levels of omega-3 are highest in cattle fed grass or high forage diets.



Core Sponsors of FAI

