Visit to Thankerton Camp Farm, Courtesy of Michael Shannon (Damn Delicious)

The tenth meeting of the Climate Change Focus Farm discussion group met at Thankerton Camp farm to look at Michael Shannon’s, entirely forage based finishing operation.

Michael Shannon purchased Thankerton Camp farm in 2007. The land extends to 250 acres and lies at 700ft above sea level on a stony free draining soil. Stock include a flock of 200 breeding ewes with all lambs finished on the farm and around 150 cattle. The cattle are spring born, weaned calves which are purchased in the autumn and are predominantly Aberdeen Angus and Shorthorn.

The cattle spend their first winter outside on forage crops & silage, then are grown and finished at grass on a rotational grazing system. The cattle receive no concentrate feeding.

Each year approximately 100 lambs and 100 cattle are sold through the on farm butchery; Damn Delicious, which also sells online. [www.damndelicious.co.uk](http://www.damndelicious.co.uk). Any stock surplus to shop requirements is sold to Highland Meats.

Rotational Grazing

Michael uses rotational paddock grazing to maximise his output from grass. Grass mixtures are all high sugar diploid perennial ryegrass (intermediate and late). Tetraploid grasses have been phased out as they struggled to persist in hard winters. A white clover blend is included at 2.5kg/ha and on selected swards 3.7kg/ha red clover.

The rotation cycle is around 21 days with paddock sizes of 0.6ha. Semi permanent fences (marked red in the diagram) are used to split the field and provide electrical conduits for the single electric wire on geared reels. Three wires are used to create paddocks and manage the movement of cattle round the field. Water troughs are strategically positioned along the semi permanent fence, servicing both halves of the field.

During peak grass growth stocking rates are as high as 3000 kgwt/ha, in the autumn this drops to 1900 kglwt/ha. Normally cattle are moved every day and at most every 3 days. During peak growth, sections will be bypassed and cut for silage.
**Keeping grass productive**

High performance at grass is needed to finish cattle, so swards are routinely reseeded (within 8 years). The wrapped silage bales are spaced in long rows the length of the field. The field is then disced and a crop of hybrid kale is sown by spinning on with fertiliser and rolling. No ploughing is used to avoid bringing up stones. When grazed, an electric wire restricts stock to a break of forage crop and 2 bales of silage per day. In the following spring the field is cultivated and sown with forage cereal crop under sown with grass. The cereal crop is baled at milky ripe and the young grass is grazed by weaned lambs to increase tiller numbers.

In its first full year it is cut for silage and then further grazed by sheep. Thistles are a problem weed on the farm and treatment is necessary on all new leys. Thistle control with 1l/ha MCPA is undertaken in the year following establishment.

Fertiliser is applied in April with subsequent applications of straight ammonium nitrate applied at 50 kgN/ha from May where needed. Typically 150kgN/ha is applied to grazing grass per season.

**The finished product**

Target dead weight of around 320kg and O4L+ grade. A higher fat class is preferred for the 21 days hanging period. Extra trimming is required after the ageing process; trimming fat is preferable to trimming meat. Typically animals are finished around 22 months old with Angus and Shorthorns used for shop sales and other breeds sold in to the dead weight market.

Michael commented that, "The breed of cattle doesn’t seem to make much difference to the taste, it’s more about the forage based diet they receive". Cattle are fed entirely forage diet for approximately 1 year.

The business tries not to chase the Aberdeen Angus premium as you lose the 20p you gain when you purchase the animal at the market.

**Forage Crops**

The picture shows the rows of silage bales which were cut and wrapped in the field before drilling the different fodder crops.

The cattle are out wintered on forage crops of swede, kale and fodder beet. The swedes perform better in harsh winters, being less susceptible to frost. Getting the swede crop off to a flying start is key and helps to reduce weed competition and reliance on a limited herbicide choice.

Herbicide weed control is more effectively used in fodder beet. Michael finds he can successfully finish cattle on fodder beet, but is not able to do so on the other forage crops.

The fodder beet system costs 50p/head/day excluding silage; the kale & swede system cost 50p/hd/day including silage. Based on a 180 day winter animals can be kept for £90/head.