

Frederick Hiam Farms, Brandon, Suffolk. 13th July 2011

Brian Sims¹ and Jim Ellis-Jones

Introduction

Frederick Hiam Ltd is a predominantly vegetable production and packaging concern that has been family owned for the past 80 years. The current MD is Christopher Wilson, a great grandson of the company founder, Frederick Hiam.

On the visit we were superbly hosted by Charlie Hancock (Operations Director) and Nick Gilford (Commercial Director) at the Brandon Site.



Charlie Hancock, Operations Director, explains the potato processing line.

The company owns six farms covering some 9000 acres in Suffolk, Norfolk, Cambridgeshire and Pembrokeshire and these are run by a work force of 65 full time employees plus seasonal labour that is contracted as required. The main focus of the farming activities is vegetable production and packaging and that is what we came to see at Brick Kiln farm. There is more information on the entire company at www.frederick-hiam.co.uk.

Brick Kiln and Lime Kiln farms, Brandon, Suffolk

These farms comprise 1040 acres of fragile sandy Breckland soils. These soils are prone to wind erosion and so the Brecklands have long (since the 1920s anyway) been protected by tree wind breaks. The sandy textured soils are low in organic matter (OM) and require irrigation for commercial crop production. The productive agricultural landscape on show today is a far cry from the 'drie, barren and miserably sandy' description of 1667².



The crops at Brandon include onions, potatoes, parsnips, sugar beet and wheat as a rotational break crop. Carrots are primarily supplied by contracted outgrowers. Brandon is also the home of the vegetable grading and packaging operation aimed at supplying supermarkets and the catering trade in the UK and continental Europe.

¹ www.engineering4development.co.uk

² www.brecks.org/shared/pdfs/Historicoutside.pdf

Annual production figures for all the farms include 35 thousand tonnes of potatoes; 25 of onions and 18 of parsnips. Breckland farms cultivate about 40% of UK production of onions and parsnips and so Frederick Hiam is clearly a major player in the national food chain.

Crop production

The Breckland soils are intensively cultivated for vegetable production; they are deep-ploughed and the beds are de-stoned. This is done by a de-stoning machine which digs and sieves the soil and deposits the stones in the wheel tracks parallel to the planting beds. Beds are relocated in subsequent seasons by GPS guidance.



Cropping beds are de-stoned which greatly facilitates harvesting and contamination. Stones are deposited in wheel tracks between the beds which facilitates traction and drainage and reduces compaction.

Ploughing is not, of course, conducive to OM preservation and so organic amendments – in the form of poultry manure (from the local turkey production industry) – are needed. Application needs to be carefully controlled as the Breckland farms are in a Nitrate Vulnerable Zone (NVZ)³. Another way to add OM and fertility to the soils is through free-range pig rearing. Although the company does not, itself, have such an enterprise, it rents out land in the rotational cycle for others to bring their pigs in. One such enterprise that we saw during the visit was of Gloucestershire Old Spots crosses destined for Waitrose.

Although Charlie explained that it is ‘not in our interest to work our soils in an adverse manner’, there are times when contracts have to be serviced and crops may be harvested in sub-optimal conditions. It is often to undo the structural damage caused that cultivation is deemed to be necessary.



Potatoes have just been harvested from this soil when in a just about optimum condition. Even so there is damage from compaction under the wheels of the heavy harvest traffic which will be ameliorated by tillage.

³ www.environment-agency.gov.uk/business/sectors/54714.aspx

Production at this scale demands a heavy investment in machinery, although many contractors are also employed for routine tasks such as soil cultivation and agro-chemical application. The company has five potato harvesters, three onion harvesters, 50 irrigation units and nine reservoirs in addition to its fleet of 35 tractors.

Ensuring adequate water supplies is a major preoccupation as practically all the crops need irrigation. Water is pumped from aquifers and stored in periods of low demand (and maximum supply), but even so the water table is reported to be falling in the Brecklands as a result of over-enthusiastic extraction rates.



Irrigated parsnips grown on de-stoned beds. Parsnips can be planted as early as January and February under plastic mulching. They can also be mulched with straw to prevent freezing and then harvested in the winter.

The wheat break crop uses an awned variety (*Soissons*) as it has a short cycle and fits in well with the vegetable cropping seasons. Soil preparation for the wheat crop currently comprises sub-soiling followed by discing. It would be interesting to see this enterprise gradually move towards no-till, starting, perhaps, with one or two fields to see how gross margins hold up during the switch over process. All residues would have to be retained in the field by spreading the straw behind the combine at harvest. Planting could initially be done by contractor to avoid the immediate need for investment in a specialist no-till seed drill.



Vegetable processing

The company uses primarily eastern European labour supplied by local agencies as efforts to employ local labour have not been too successful in the past. Production and packaging are treated as one unit as the quality of the harvested produce impacts directly on the profitability of the cleaning and packaging operation. For instance, if the vegetables are delivered to the processing plant with too much soil contamination, then this can demand an excessive amount of water for cleaning and the sediment can clog up the water treatment plant (all cleaning water is recycled).



Grading washed potatoes. The line is capable of processing sixteen 10 kg cases per minute.

The washing and grading machinery lines are designed by the company and installed by DC Engineering from Swaffham. Local manufacturers are used to fabricate some specific pieces of equipment: for example, NI Agri-Engineering of Lakenheath has made, amongst other equipment, a washer for samples of the incoming crop to be processed.



Carrots are brought in from outgrowers and serve to maintain more even output from the processing plant throughout the year.

Conservation

Frederick Hiam is serious about conservation. At the moment the Brandon site is being equipped with roof-mounted photovoltaic panels with a 550kW capacity (and a cost of £2.2m).

Across the six farms there is a range of wild species that can thrive in the many acres of woodland (780 at Brandon) and ESA (Environmentally Sensitive Area) grassland. Otters, red kites and deer are some examples of the wildlife that is preserved. And of course the Breckland grasslands, established on the ancient windblown sands covering the chalk bedrock and grazed by rabbits introduced in the 12th Century, are a precious botanical legacy for us all.