

THEME REPORT

LOTHIANS MONITOR FARM Saughland Fodder Beet

Fodder Beet has been grown in Scotland for many decades and with some encouragement from the community group Peter sowed 6.5ha in summer 2018. The crop established well and this themed report will review the 2018/2019 Saughland Fodder Beet performance. The trial proved to work well through the winter and provided a valuable feed source for the ewes. The group accepted that the weather conditions had been favourable but regardless both varieties (Blaze and Blizzard) had performed well.

THE CHALLENGE

The challenge at Saughland has been to find a system which can utilise fodder crops to provide an alternative winter feed and reduce purchased concentrates. The challenge has also been to find a fodder crop which will perform on the farm and can be harvested or grazed in situ by pregnant ewes.



Challenges

- Ample summer grazing but always winter shortage
- Supplementary purchased concentrates are expensive
- Growing sufficient winter fodder for the ewe flock
- Finding a fodder crop which is winter hardy
- Finding a fodder crop which can be harvested or grazed in situ
- Sourcing the knowledge or expertise to try alternative crops
- Weather conditions
- Source appropriate machinery
- Find a crop which will fit with the current rotation



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WHAT WE DID ON FARM?

Peter discussed the option of growing Fodder Beet with the community and management group and the decision was taken to sow 6.5ha of Fodder Beet to provide an alternative feed source for the pregnant ewes in the winter months.

The Fodder Beet was established in June 2018 in dry conditions which continued through the summer months. The crop established successfully and performed well in the dry summer months when grass other fodder crops struggled.

Saughland Fodder Crop 2018

Fodder Beet

Field Name	Type	Timings	Previous Crop
Pagan One 7ha	Mixture of Blaze and Blizzard (6.5ha)	Established in June. Recommend to harvest -Oct, Nov, Dec	Kale

Standard figures for Fodder Beet:

Average dry matter yield	15 - 18 tonnes/ha.
Average fresh yields	80 - 100 tonnes/ha
Dry matter	15 - 24%.
Crude protein	12 - 13%.
Digestibility value	78%
Metabolisable energy	12.5 - 13MJ/kg DM

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Community Group Review and Planning (October 2018)

The Monitor Farm community group visited the Fodder Beet crop as Peter had grown this for the first time at Saughland. The crop grew well in the dry conditions and the challenge for the group was to work out how best to utilise it.

There are 2 varieties in the mix, Blaze and Blizzard and prior to the meeting the yield was estimated at 20t DM/ha. One of the varieties sits higher in the ground and may be more suited to grazing but on inspection and with some very valuable knowledge and experience in the group, the feeling was that it could all be grazed in situ. The plan would be to strip graze with ewes but the timing of access and size of feed face would need to be calculated. Ultimately, the crop has grown really well and is a very valuable feed bank for winter.



Winter Utilisation

Following further discussion with some of the management group, Peter decided to lift some of the crop and 35% was lifted before Christmas. This allowed for the Fodder Beet to be used across the farm to other groups. There was also concern that the deeper-rooted variety would need grubbed to expose the bottom half of the beet to the ewes. By lifting a proportion helped managed the risk of underutilisation should the ewes reject the grubbed beets.



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Winter Utilisation

- 35% lifted before Christmas
- Stored outdoors for 7 weeks
- 1000 ewes strip grazed remainder from second week in January with 1kg DM/day
- Continual access to silage
- 300 twins remained until Mid-March and
- 90% of crop utilised



THE RESULTS

The results from the Fodder Beet trial were very encouraging and there was huge value in having the management group and the community group with previous knowledge of growing and utilising the crop as part of the discussion.

The crop cost £650/ha to establish and yielded 100t/ha fresh weight at 20% Dry matter. The cost of production worked out at 3.25p/kg of dry matter which compared with Feed Barley at 20p/kg Dry Matter. The level of output from the 6.5ha field was significant and compared with 71 bales/hectare or 22t/acre of 35% DM silage.



Area Grown	6.5ha
Establishment Costs	£650/ha
Yield	100t/ha (Fresh Weight)
Dry Matter	20t/ha
Cost of Production	3.25p/kg DM
Comparable – Feed Barley	20p/kg DM
Silage Equivalent	71 Bales/ha (22t/acre) @ 35% DM

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Fodder Beet Benefits

There were significant benefits to growing Fodder Beet in 2018 which are listed below.

- Inexpensive source of energy
- Filled the nutrition gap (Jan/Feb)
- Little waste
- Ewes ate grubbed fodder beet
- Ewes loved it
- So far, no evidence of broken mouths
- Great energy source but low in Protein



WHAT HAS CHANGED ON FARM?

The area of Fodder Beet grown in 2019 has been increased to 10.5ha and it has become an important part of the crop rotation and a valuable feed source at Saughland. The additional output provided by the fodder beet takes some silage out of the system and weather permitting, it may allow for some hay to be made for sale. There is nothing new in growing fodder beet in Scotland but gaining confidence through the group discussions with knowledgeable and experienced community group members has provided the assurance and support to increase the area for 2019.

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