Maize Catalogue
forage, grain & biogas
2013
<table>
<thead>
<tr>
<th>Varieties</th>
<th>D/M % at Harvest</th>
<th>F.A.O number</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kentaurus</td>
<td>38.6</td>
<td>160</td>
<td>3</td>
</tr>
<tr>
<td>Kromwell (NEW)</td>
<td>35.1</td>
<td>170</td>
<td>4</td>
</tr>
<tr>
<td>Ixxes</td>
<td>34.8</td>
<td>170</td>
<td>5</td>
</tr>
<tr>
<td>Agiraxx</td>
<td>34.1</td>
<td>180</td>
<td>6</td>
</tr>
<tr>
<td>Surprise</td>
<td>33.1</td>
<td>190</td>
<td>7</td>
</tr>
<tr>
<td>Hanni (Budget)</td>
<td>32</td>
<td>210</td>
<td>8</td>
</tr>
<tr>
<td>Pirro (NEW)</td>
<td></td>
<td>210</td>
<td>8</td>
</tr>
<tr>
<td>Taxxoa (Biogas)</td>
<td></td>
<td>220</td>
<td>9</td>
</tr>
<tr>
<td>Grain Maize (Call office for options)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Fertilisers**

<table>
<thead>
<tr>
<th>Maize Starter Fertiliser</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize Fertiliser Requirements</td>
<td>10</td>
</tr>
</tbody>
</table>

**Guidance**

| Guide to successful Maize Silage | 11 |

**GAME COVER MAIZE**

For our complete range of game cover maize, general game covers, roots and stewardship seeds, please call for a copy of our Countryside seed catalogue.

E: info@greenfarmseeds.com
Kentaurus (ultra early F.A.O 160)

This variety is the UK’s highest yielding ultra early forage maize.

For growers in favorable areas Kentaurus offers very early maturity even if sown relatively late after a spring silage cut.

Kentaurus has demonstrated cob ripening ahead of varieties grown under plastic.

**Characteristics**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Maturity</th>
<th>Dry Matter Yield</th>
<th>Dry Matter %</th>
<th>Starch Content %</th>
<th>ME (MJ/kg)</th>
<th>Cell Wall Digestability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>97</td>
<td>38.6</td>
<td>36.4</td>
<td>11.5</td>
<td>55.5</td>
</tr>
<tr>
<td></td>
<td>Ultra Early</td>
<td>Average</td>
<td>Very High</td>
<td>High</td>
<td>Very High</td>
<td>Average</td>
</tr>
</tbody>
</table>

**Benefits**

- Winner of the NIAB cup for excellence (only maize variety to achieve this)
- Kentaurus is specially recommended for all less favourable and marginal maize growing sites.
- High yields for its maturity class
- Extremely high starch content for maximum feed value
- Very good early vigour, ideal for heavy soils
- Excellent silage quality at 11.5 ME, combined with leading starch yields (6.6 t/ha)
- Excellent whole plant digestibility (over 70%)
- Kentaurus produces a large well filled and enclosed cobs
- Available with Wire Worm treatment

Mesurol & Thiram treated, 50,000 seed packs
**FORAGE MAIZE**

**Kromwell (very early F.A.O 170)**

A very robust early hybrid bred by KWS

The 1st of a new generation of breeding with fully enclosed and protected cob

Early cob ripeness producing high energy content forage

<table>
<thead>
<tr>
<th>Characteristics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maturity</td>
<td>9</td>
<td>Early</td>
</tr>
<tr>
<td>Dry Matter Yield %</td>
<td>105</td>
<td>High</td>
</tr>
<tr>
<td>Dry Matter %</td>
<td>35.1</td>
<td>High</td>
</tr>
<tr>
<td>Starch Content %</td>
<td>34</td>
<td>Very High</td>
</tr>
<tr>
<td>ME (MJ/kg)</td>
<td>11.4</td>
<td>Very High</td>
</tr>
<tr>
<td>Cell Wall Digestability</td>
<td>57</td>
<td>High</td>
</tr>
</tbody>
</table>

**Benefits**

- Highest starch levels ensure an energy dense diet
- High ME yields and improved cell wall digestibility allows high feeding levels
- Produces a large energy rich full cob with no exposed grains reducing the risk of microtoxin contamination in the clamp
- Kromwell shows very good early vigour along with good standing power
- Kromwell combines high dry matter with moderate stay green characteristics
- A bold plant with excellent early vigour
- Very good standing power at harvest
- Available with wireworm treatment

**Mesurol & Thiram treated, 50,000 seed packs**

www.greenfarmseeds.com
**FORAGE MAIZE**

**Ixxes (early F.A.O 170)**

High yields in its class combined with maximum intake.

A very well proven forage maize providing high yields and excellent feed quality and earliness.

Proving to be one of the highest energy yielding maize varieties on favourable and less favourable sites throughout the UK.

**Characteristics**

<table>
<thead>
<tr>
<th>Maturity</th>
<th>9/8</th>
<th>Early</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Matter Yield %</td>
<td>97</td>
<td>Average</td>
</tr>
<tr>
<td>Dry Matter %</td>
<td>34.8</td>
<td>Very High</td>
</tr>
<tr>
<td>Starch Content %</td>
<td>32</td>
<td>High</td>
</tr>
<tr>
<td>ME (MJ/kg)</td>
<td>11.3</td>
<td>High</td>
</tr>
<tr>
<td>Cell Wall Digestability</td>
<td>57.2</td>
<td>High</td>
</tr>
</tbody>
</table>

NIAB figures

**Benefits**

- Highest scoring variety for eyespot resistance (Kingshay)
- Offers a very low cost per tonne of dry matter
- Earliness with no yield or quality penalties
- High dry matter increases animal intakes
- A proven variety for marginal sites or early harvesting
- Robust field characteristics with excellent early vigour and standing power
- Produces well filled cobs reducing the risk of microtoxin contamination in the clamp
- High Cell Wall Digestability of 57.2 improves utilisation
- Available with wireworm treatment

**Mesurol & Thiram treated, 50,000 seed packs**

Bred by RAGT SEMENCES

E: info@greenfarmseeds.com
**FORAGE MAIZE**

**Agiraxx (mainstream/early F.A.O 180)**

A new generation of high intake varieties from R.A.G.T offering maximum digestibility

Combines high dry matter and starch yields resulting in a high energy forage.

Well suited to favourable and marginal sites producing a secure and early harvest.

**Characteristics**

<table>
<thead>
<tr>
<th>Maturity</th>
<th>8</th>
<th>Mainstream/early</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Matter Yield %</td>
<td>107</td>
<td>High</td>
</tr>
<tr>
<td>Dry Matter %</td>
<td>34.1</td>
<td>High</td>
</tr>
<tr>
<td>Starch Content %</td>
<td>34.2</td>
<td>High</td>
</tr>
<tr>
<td>ME (MJ/kg)</td>
<td>11.6</td>
<td>High</td>
</tr>
<tr>
<td>Cell Wall Digestability</td>
<td>57</td>
<td>High</td>
</tr>
</tbody>
</table>

Independant trials figures

**Benefits**

- Highest Kingshay dry matter yields 2012
- Kingshay highest estimated crop values (£/acre) marginal sites rolling average
- In trials Agiraxx produces the silage with the highest total digestibility
- High dry matter, starch and M.E yields ensure maximum livestock performance
- Early leaf dry down combines well with grain maturity allowing early harvesting
- A very bold plant with large uniform well formed and enclosed cobs
- Offers considerable yield and quality benefits over current mainstream varieties
- A robust variety with good early vigour ensures rapid establishment
- Winner of five regional maize competitions in 2012
- **Available with wireworm treatment**

**Mesurol & Thiram treated, 50,000 seed packs**

Bred by

RAGT SEMENCES

3rd biggest UK selling variety in 2012
Surprise (mainstream F.A.O 190)

A farmer friendly variety that provides high energy per hectare of maize.

Surprise uniquely combines high yields of ME and digestable starch with high fibre digestibility.

A high performance mainstream forage and grain maize where energy and yield are paramount characteristics.

**Characteristics**

<table>
<thead>
<tr>
<th>Maturity</th>
<th>7</th>
<th>Mainstream</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Matter Yield %</td>
<td>108</td>
<td>High</td>
</tr>
<tr>
<td>Dry Matter %</td>
<td>33.1</td>
<td>Average</td>
</tr>
<tr>
<td>Starch Content %</td>
<td>33.5</td>
<td>High</td>
</tr>
<tr>
<td>ME (MJ/kg)</td>
<td>11.4</td>
<td>High</td>
</tr>
<tr>
<td>Cell Wall Digestability</td>
<td>58.5</td>
<td>Very High</td>
</tr>
</tbody>
</table>

**Benefits**

- A very well proven variety in a wide range of conditions
- High dry matter yields improve intake
- A reliable variety, producing an early maturing large well filled cob
- Variety with the highest combined production and energy yields
- Excellent vigour and standing power
- Surprise has high whole plant digestibility of 67.8% which maximises plant efficiency and milk and meat production
- Proven to be a very high yielding grain maize with low moisture content and bold grains
- **Available with wireworm treatment**

**Mesurol & Thiram treated, 50,000 seed packs**

Bred by

www.greenfarmseeds.com
FORAGE/BIOGAS MAIZE

Pirro (Forage & Biogass F.A.O 210)

- Highest yielding variety in all NIAB UK trials 2012 at 121%
- Uniquely has higher dry matter % and yield
- Reliable cob setting produces enclosed well filled heavy cobs
- Highest NIAB scores for early vigour 2012
- Limited seed available for 2013

Characteristics

<table>
<thead>
<tr>
<th>Variety</th>
<th>DM %</th>
<th>Total DM Yield %</th>
<th>Total Fresh Yield t/ha %</th>
<th>Plant Height cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pirro</td>
<td>28.7</td>
<td>102</td>
<td>99</td>
<td>278</td>
</tr>
<tr>
<td>Ronaldinio</td>
<td>26.5</td>
<td>103</td>
<td>104</td>
<td>263</td>
</tr>
<tr>
<td>Fabregas</td>
<td>26.5</td>
<td>100</td>
<td>101</td>
<td>262</td>
</tr>
<tr>
<td>Ambrosini</td>
<td>26.9</td>
<td>104</td>
<td>104</td>
<td>259</td>
</tr>
</tbody>
</table>

Hanni (Budget variety)

- A proven maize variety with good yields
- Produces a strong and bulky plant
- Most suited to favorable sites and early sowing
- An economically priced and reliable variety

Characteristics

<table>
<thead>
<tr>
<th>Maturity</th>
<th>5</th>
<th>Medium/Late</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Matter Yield %</td>
<td>102</td>
<td>Average</td>
</tr>
<tr>
<td>Dry Matter %</td>
<td>32.1</td>
<td>Average</td>
</tr>
<tr>
<td>ME (MJ/kg)</td>
<td>11.1</td>
<td>Good</td>
</tr>
</tbody>
</table>

Both varieties Mesurol & Thiram treated, 50,000 seed packs

Limited seed, all varieties offered subject to availability at the time of ordering please call 01531 822833
Throughout the E.U maize is the main plant based raw material for biogas production through anaerobic digestion.

To be able to supply the required quantities of biomass, biogas production needs to achieve as high an efficiency level as possible using the whole plant.

Energy maizes differ from forage maize as they are bred for total fresh and energy yields potential rather than feed quality. In this way maximum methane yields are directly linked to total yield potential.

**Taxxoa**

**Benefits**

- Highest dry matter yielding biogas variety in UK trials at 28t/ha
- Highest energy yielding variety in UK trials at 316 MJ/ha
- Bred for maximum methane yield and extraction
- Market leading variety for biogas in France, Germany and Holland
- Now available for UK energy production
- Could be used for bulk forage production if required
- Large structured plant with excellent standing power
- Extremely good early vigour improves establishment, especially on marginal sites
- Taxxoa also has the potential to be used as a high yielding forage maize (please call to discuss)

<table>
<thead>
<tr>
<th>Variety</th>
<th>Fresh Yield t/ha</th>
<th>DM%</th>
<th>DM Yield t/ha</th>
<th>Energy Yield MJ/ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxxoa</td>
<td>78.14</td>
<td>36.10</td>
<td>28.21</td>
<td>315.952</td>
</tr>
<tr>
<td>Ronaldino</td>
<td>71.81</td>
<td>33.30</td>
<td>23.91</td>
<td>270.206</td>
</tr>
<tr>
<td>NK Bull</td>
<td>57.29</td>
<td>23.18</td>
<td>19.76</td>
<td>227.290</td>
</tr>
</tbody>
</table>

**Mesurol & Thiram treated, 50,000 seed packs**
Primary P (10N 40P 2Mg 11So3 2Zn)
Premium micro granular starter fertilizer

Benefits

- Economic – cheaper per acre than traditional starter fertiliser
- Agronomic – faster seedling and root development
- Logistical – only 6-8 kg per acre required
- Less soil moisture required to dissolve and make available
- Phosphorus and Zinc are especially important in the initial period of growth
- Zinc increases the seedling resistance to environmental stress i.e. spring temperature, disease, pests and improves phosphorous utilisation
- Improves establishment in dry, cloudy or cold soil conditions
- Targets nutrition where it is needed and used
- Primary P contains a coating that enhances Phosphorous availability protecting it from cation lock up
- Primary P in trials 11% more yield than 125 kg / ha MAP 50 and 23% more than control
- Packed in 10 kg packs

Maize Fertiliser requirements

Correct nutrition is vital to provide a successful and economic maize crop. Figures below based on peak uptake for a 20 t/ac (50 t/ha) maize crop.

<table>
<thead>
<tr>
<th>Nitrogen (N)</th>
<th>Phosphate (P)</th>
<th>Potash (K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>210 kg / ha</td>
<td>168 units / acre</td>
<td>55 kg / ha</td>
</tr>
</tbody>
</table>

Available nutrients for the next crop following spring application

<table>
<thead>
<tr>
<th>Source PDA</th>
</tr>
</thead>
</table>

- Cattle FYM
  - Kg per tonne: N 1.2, P 2.1, K 7.2
  - Units per ton: N 2.4, P 4.2, K 14.4

- Broiler Litter
  - Kg per cubic meter: N 9, P 15, K 16
  - Units per 1000 gal: N 18, P 30, K 32

- Cow Slurry
  - Kg per tonne: N 1.0, P 0.6, K 3.2
  - Units per ton: N 9, P 5.4, K 29

- Pig Slurry
  - Kg per tonne: N 1.2, P 1.0, K 2.3
  - Units per ton: N 11, P 9, K 21

It is important not to exceed environmental guidelines
GUIDE TO SUCCESSFUL MAIZE SILAGE

Drilling Date: Ideally early April to early May. Early drilling improves dry matter yields, grain content and drought sensitivity.

Soil Temperature: Consistently at 8°C at sowing depth.

Seed bed: Ensure a moist deep tilth with no compaction or water logging.

Sowing depth: Sow at 1” to 2”. The seed must however be sown into moisture so may need to be deeper if necessary.

Starter Fertiliser: Improves establishment speeding up growth, maturity and improving dry matter and starch yields.

Seed Dressing: Mesurol is applied as standard if there is a risk of wire worm attack after a long term ley use Gaucho, Poncho or Cruiser treatments.

Seed Rates: Plant population of 45,000 seeds per acre out yield population of 40,000 seeds per acre.

Weed Control: Due to maize’s lack of competitiveness in its early growth stages effective weed control is required to avoid crop failure.

Maize Eyespot: An increasingly common fungal disease effecting continuous maize at temperatures below 27°C. It will also effect harvest dates, starch levels and feed values. A preventative spray in mid July will control any occurrences.

Harvest Maturity: Immature harvesting reduces energy and starch yields by up to 30%, adversely effecting animal performance and health.

Chop Length: Approx 12mm in length, shorter reduces fibre in the stomach causing dietary upset and reduces animal production.

Grain Cracking: To ensure maximum energy utilisation the corn cracker must be correctly adjusted to completely shatter all the grains to a powder.

Feed Out: Leave the clamp sealed for at least 4 weeks allowing the silage to stabilise and the grains to soften.