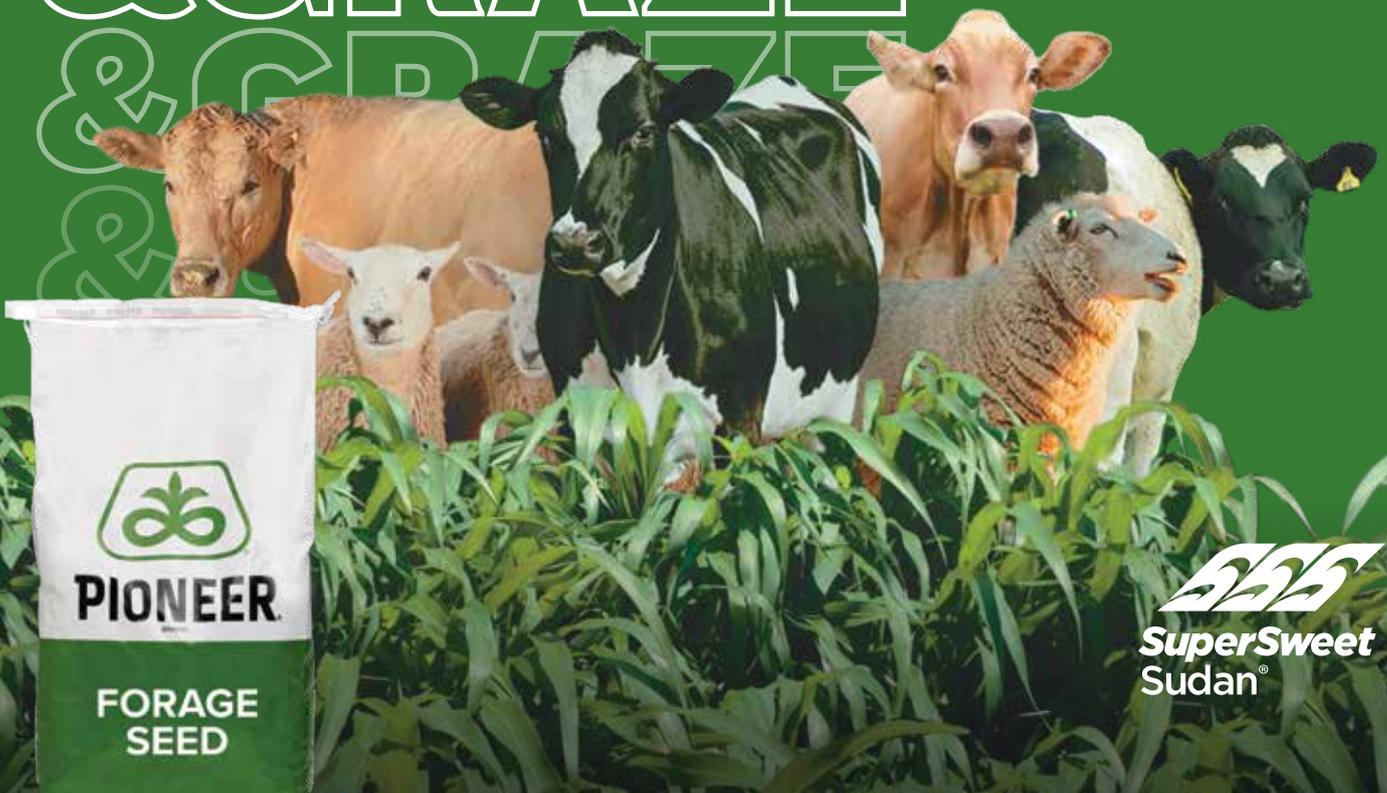




**PIONEER**  
BRAND · PRODUCTS

SUMMER FORAGE GROWING GUIDE

# PLANT, GROW & GRAZE & GRAZE & GRAZE & GRAZE & GRAZE & GRAZE





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**PIONEER® BRAND**

# SUPER SWEET SUDAN

Studies have shown that sudan poses a lower risk of prussic acid toxicity than sorghum type forages.

**A unique Australian product, bred for Australian conditions.**

**NEXT GENERATION HYBRID:**

Pioneer® brand hybrid Super Sweet Sudan (SSS) is quick to graze and sustains multiple and intensive grazing. SSS produces high quality hay and round bale silage suitable for sheep and cattle. Adaptable for early or late planting.

**KEY FEATURES**

- **Grow more with less** – High quality, smaller seed means you plant more hectares with less kilograms
- **Wide area adaption**
- **Very fast growth and regrowth**
- **Prolific tillering habit**
- **Superfine stems**
- **Super sweet and leafy**
- **Super high-quality hay**
- **Highly palatable** at all stages of maturity and growth
- **Suited for dryland situations** and intensive irrigation

**PRIMARY USE:**

Cattle and sheep plus intensive or non intensive grazing produces highly palatable hay plus round bale silage.

|                             |   |
|-----------------------------|---|
| Early seedling vigour       | 7 |
| Beef grazing                | 9 |
| Dairy grazing               | 9 |
| Sheep grazing               | 9 |
| Hay making                  | 9 |
| Fast feed                   | 9 |
| Late Summer/carry over feed | 7 |
| Pit silage                  | 5 |
| Round bale silage           | 9 |

**RATING:**  
1 = poor  
9 = excellent

**PLANT TYPE AND PLANTING INFORMATION**

|     | Genetic type hybrid | Approximate time to flower | Soil temperature required for sowing | Seed count (seeds/kgs)    |
|-----|---------------------|----------------------------|--------------------------------------|---------------------------|
| SSS | sweet sudan x sudan | 57-62                      | 15°C+                                | 77,500 to 96,000 seeds/kg |

| PLANTING RATES   |                    |             | FEED QUALITY           |                  |
|------------------|--------------------|-------------|------------------------|------------------|
| Marginal Dryland | Favourable Dryland | Irrigated   | Initial grazing height | Regrowth grazing |
| 2-5 kg/ha        | 6-12 kg/ha         | 12-20 kg/ha | 50-80 cm               | 70-110 cm        |

SSS has been developed in Australia for local conditions. It is the only true super sweet sudan-by-sudan hybrid forage on the market in Australia. Since 2012 this unique product has proven that it has wide area adaptability and flexibility due to the highly palatable sweet stems and excellent leaf mass at all stages of maturity. These features give you grazing and haymaking flexibility that other summer forages will struggle to match.

Studies have shown that sudan-type forages pose a lower risk of prussic acid toxicity to livestock than sorghum or sorghum-cross type forages giving even more flexibility to your grazing or haymaking operations.

With SSS requiring soil temperatures at planting of 15°C and rising, it is an excellent early plant option. Quick early growth means fast to graze and fast regrowth will provide multiple sweet fine-stemmed tillers. SSS has the ability to maintain multiple grazings for sheep and cattle while also providing the opportunity to make high quality hay. For best weight gains SSS should be initially grazed at 50-80 cm tall. Either stock with high animal numbers or strip-graze the paddock for best results. Unlike many other summer forages, if you do find yourself in the position where a field is going to head due to an unforeseen delay in grazing, the SSS is usually still very palatable due to the super sweet fine stems.

# THE SECRET TO SUCCESS WITH SSS

## 1. Water quality

Studies have shown sudan grass should be capable of growing with irrigation water salinity as high as 2.7 to 6.35 deciSiemens per metre (source: agri.wa.gov.au). There is no doubt that the better the water quality, the higher the performance of the crop. This has been demonstrated in irrigated crops where natural rainfall has given the crop a tremendous production boost.

## 2. Soil temperatures

The soil temperature needs to be around 15°C and rising for a minimum of three days before planting. If planted too early, low soil temperatures will result in slow seedling growth and expose the emerging seedlings to increased risk of disease and insect attack. Most cases of poor forage crop establishment can be traced back to either low soil temperatures or marginal soil moisture at planting. Ideally delay planting until soil temperatures are around 15°C and there is good soil moisture for rapid crop establishment and growth. SSS should not be planted after the end of January.

## 3. Seeding equipment

When planting SSS the use of either a combine, pasture planter or air seeder is recommended. It is recommended that press wheels are used otherwise roll the paddock after seeding, to increase seed to soil contact as long as the ground is not prone to sealing over.

## 4. Row spacings

For grazing purposes 10 to 50 cm is the preferred width however up to 150 cm rows are manageable in very marginal dryland situations. For intensive export and domestic hay production, the preferred row spacing is as narrow as possible approximately 10-50 cm.

## 5. Seeding rates

| PLANTING SITUATION | GRAZING OR HIGH VALUE PRODUCTION |
|--------------------|----------------------------------|
| Marginal dryland   | 2-5 kg/ha                        |
| Favourable dryland | 6-12 kg/ha                       |
| Irrigation         | 12-20 kg/ha                      |

## 6. Seeding depth

Sow at **3 cm into moisture with press wheels** or a field roller, or you may have staggered germination. The depth of seeding is critical for good establishment. It is essential that the seed goes into good soil moisture or you will suffer high plant losses if the crop does not receive follow up rainfall within the following two weeks.

## 7. Nutrition

**One tonne of dry matter will remove approximately the following amounts of nutrients:**

|                   |        |                  |        |
|-------------------|--------|------------------|--------|
| <b>Nitrogen</b>   | 28 kg  | <b>Sulphur</b>   | 2.5 kg |
| <b>Phosphorus</b> | 3.5 kg | <b>Calcium</b>   | 3 kg   |
| <b>Potassium</b>  | 20 kg  | <b>Magnesium</b> | 3 kg   |

For dryland environments, work on a similar fertiliser program as grain sorghum. For irrigated environments, use the removal table above to plan your fertiliser schedule pre and post grazing or for hay production. In high PH soils there may be deficiencies of zinc or manganese. These elements may be applied as a foliar in the early growth stages if required.

***Note** - Before planting SSS into any paddock it is best practice to get a soil test completed. This will give your agronomist a picture of soil fertility. Also focus on the use of (K) potassium-based fertilisers in soil types with deficiencies of this nutrient. Optimum potassium nutrition allows the plant to use moisture more efficiently. SSS is a grass crop so will require a high base of fertility to maximise production. Failure of any of the major or trace elements may result in poor crop performance.*

## 8. Weed control

During the establishment phase of the crop, all forages are sensitive to weed competition, particularly grass weeds which may significantly reduce forage yields and quality. It is recommended to plant Betta Strike® Plus treated SSS seed if such weed pressures are likely. This seed coating contains Cruiser®\* for the control of most soil insects and Concep II®\* which protects the emerging SSS seed from a pre-emergent application of Dual Gold® or Primextra Gold®. If low grass weed pressures are expected, then basic seed treatment (Thiram) may be sufficient.

Speak to your Consultant or Agronomist about the appropriate rate and method of application of any pre or post emergent herbicides required in a crop.

## 9. First cut or graze

The first cut or graze should occur early on in the crops life (the leveller). This should be done when plants are 50 to 80 cm high. The best grazing option is to first graze with high stocking rates as this practice will encourage high tillering, fine stems and leafy regrowth (8-10 cm height off the ground - min grazing height).

## 10. Sheep and cattle grazing

SSS has fine regrowth stems and is capable of carrying very high stocking numbers. When grazing lambs and sheep, introduce stock to the paddock when the plant reaches 50 cm. If possible, avoid allowing the crop to get too tall; if this occurs the feed value of the crop reduces dramatically. So be aggressive with your grazing management.

Another great option is to run two separate paddocks so you can rotationally graze. This allows the regrowth to get up to 50 cm again before restocking. An extremely heavy grazing will help SSS express its fine tillering characteristics. This will encourage plants with three to five tillers to quickly generate multiple tillers. The quicker you can get the crop to this stage, the higher the stock-carrying capacity will be.

Cattle grazing can generally start once secondary root growth is sufficient to ensure plants remain anchored. This could be earlier or later than the 50cm growth stage.

## 11. SSS has low prussic acid (LPA) potential

**Let's set the record straight.** Prussic acid is found in all forage sorghums. Prussic acid, also known as, hydrogen cyanide or hydrocyanic acid (HCN), can cause stock mortality if levels are high.

Signs of poisoning will occur within an hour of stock grazing the forage. The normal symptoms are rapid and laboured breathing and staggering.

The potential level of prussic acid within a forage is influenced by the parentage of the forage hybrid. The highest level is associated with forage or grain sorghum hybrids while full sudan grass hybrids have a lower level of natural prussic acid production. SSS is a sudan by sudan hybrid, which means it has a lower potential for prussic acid production.

Grower management of the forage crop is actually the greatest influence on prussic acid levels. Managed correctly, most forage crops can be grazed or cut for hay without any real risk of prussic acid being a problem.

## 12. Animal husbandry:

- Avoid introducing stock when they are hungry/always pre-feed
- Introduce stock when the plant is 50 cm or more in height
- Offer stock an optional feed source such as a roll of hay or stubble
- The use of sulfur lick-blocks is encouraged in higher risk situations
- Avoid grazing stock on extremely stressed or blue plants

## 13. Cutting for hay

Cut the plant as low as possible (approximately 8-10 cm off the ground). This will promote aggressive tillering. The use of a conditioner will aid in the drying process.

# PIONEER BRAND® SUMMER FORAGE HYBRIDS: QUALITY FEED FOR GRAZING, HAY OR SILAGE

| HYBRID            |                              | BETTA GRAZE  | MEGA SWEET  | GRAZE-N-SILE  |
|-------------------|------------------------------|--|---|---|
| Special comments  |                              | Early seedling vigour  | Grain-bearing: feed value increases with maturity   | For pit silage  |
| Planting rate     | Marginal dryland             | 2-10kg/ha  | 2-4 kg/ha   | 40-60 000 seeds/ha  |
|                   | Good dryland                 | 5-25kg kg/ha   | 5-6 kg/ha   | 75-100 000 seeds/ha   |
|                   | Irrigation and coastal       | 10-30 kg/ha  | 8-12 kg/ha  | 100-150 000 seeds/ha  |
| Hybrid management | Level of required management | Strict management is required to realise full genetic potential and quality. Graze early and often.  | Most flexible. Maintains maximum quality and is attractive to stock at any growth stage either early, mid or late season, as well as going into Winter.           | Precise management required for silage production in areas where corn is not an option. Similar management to growing grain sorghum.  |
|                   | Grazing tips                 | High sugars, fine stems and higher digestibility allows for greater intake and better crop area utilisation – commitment to graze early and often (at 1-1.5m in plant height). | Good quality at any stage of growth, with feed value increasing with maturity. Ideal for grazing at any growth stage, especially late. Mega Sweet will set grain. | If direct grazing ensure plants are 1m and 1.5m in height.<br><br>If direct grazing there is an increased risk of acidosis once the grain fill period reaches 50% dough. Silage is the best option once this maturity is reached. |
| Row spacings      | Irrigated                    | 10 cm to 50 cm   | 10 cm to 50 cm  | 10 cm to 50 cm  |
|                   | Favourable dryland           | 10 cm to 50 cm   | 10 cm to 100 cm   | 10 cm to 100 cm   |
|                   | Marginal dryland             | Up to 150 cm on dryland  | Up to 150 cm on dryland   | Up to 150 cm on dryland   |

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## INOCULANTS

To maximize your investment in ensiled summer forage products make sure you are using Pioneer brand inoculants with Rapid React technology for fast fodder in just 7 days.

### 11CFT WITH NUTRIVAIL® FEED TECHNOLOGY

Contains live lactic acid-producing bacteria specifically selected to assist in the production of high quality corn silage

#### Corn Silage Specific

- Corn specific
- Improves fermentation & fibre digestibility
- Increases dry matter recovery & animal performance
- Reduces heating (aerobic spoilage)
- Feed out one day in advance
- Maximise return on silage

| PRODUCT                      | 11CFT |
|------------------------------|-------|
| Crop                         | Corn  |
| Fully researched and proven  | ✓     |
| Improved fermentation        | ✓     |
| Aerobic stability            | ✓     |
| Improved fibre digestibility | ✓     |

Recommended

### 11C33 WITH RAPID REACT™ AEROBIC STABILITY

Dual purpose inoculant with live lactic acid producing bacteria

#### Corn Silage Specific

- Corn specific
- Improves fermentation
- Increases dry matter recovery & animal performance
- Reduces heating (aerobic spoilage)
- Feed out one day in advance
- Maximise return on silage
- Easily manage large pitface
- Feed out in 7 days

| PRODUCT                      | 11C33 |
|------------------------------|-------|
| Crop                         | Corn  |
| Fully researched and proven  | ✓     |
| Improved fermentation        | ✓     |
| Aerobic stability            | ✓     |
| Improved fibre digestibility | ✓     |

Recommended

### 11G22 WITH RAPID REACT™ AEROBIC STABILITY

Dual Purpose Inoculant

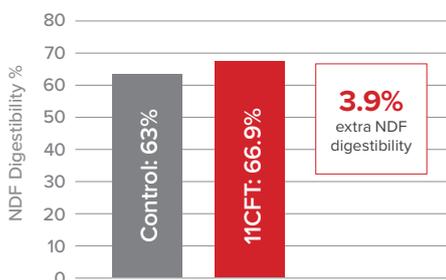
#### Grass / Cereal Silage Specific

- Grass / Cereal specific
- Improves fermentation
- Increases dry matter recovery & animal performance
- Reduces heating (aerobic spoilage)
- Feed out one day in advance
- Maximise return on silage
- Easily manage large pitface
- Feed out in 7 days

| PRODUCT                      | 11G22          |
|------------------------------|----------------|
| Crop                         | Grass & cereal |
| Fully researched and proven  | ✓              |
| Improved fermentation        | ✓              |
| Aerobic stability            | ✓              |
| Improved fibre digestibility | ✓              |

Recommended

#### Improved NDF digestibility with 11CFT



Feed out in 7 Days



# 1127

## Pasture specific bacteria

### Pasture Silage Specific

- Improves the feed value of pasture silage
- Improves fermentation process to retain nutrient content and enhance digestibility of pasture silage

| PRODUCT                      | 1127             |
|------------------------------|------------------|
| Crop                         | Pasture & cereal |
| Fully researched and proven  | ✓                |
| Improved fermentation        | ✓                |
| Aerobic stability            |                  |
| Improved fibre digestibility |                  |

Recommended

# 1174

## Designed for all forages

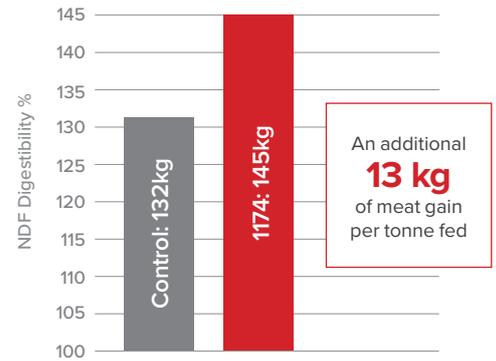
### Multi-Crop

- Multi-crop use
- Improves fermentation
- Increases dry matter recovery & animal performance
- Low cost inoculant solution

| PRODUCT                      | 1174       |
|------------------------------|------------|
| Crop                         | Multi-crop |
| Fully researched and proven  | ✓          |
| Improved fermentation        | ✓          |
| Aerobic stability            |            |
| Improved fibre digestibility |            |

Recommended

## Australian Beef Feeding Trial



Australian beef feeding trial conducted at NSW Agriculture's Research Centre at Wagga Wagga. An extra 13kg of beef per tonne of corn silage fed when treated with 1174 compared to untreated. Kaiser and Piltz 1998.

The right inoculant  
for fast silage.  
Backed by local  
experience.



# MORE SUMMER FORAGE HYBRIDS

## PIONEER® BRAND

### BETTA GRAZE

|                             |   |
|-----------------------------|---|
| Early seedling vigour       | 9 |
| Beef grazing                | 8 |
| Dairy grazing               | 9 |
| Sheep grazing               | 7 |
| Hay making                  | 8 |
| Fast feed                   | 9 |
| Late Summer/carry over feed | 3 |
| Pit silage                  | 3 |
| Round bale silage           | 9 |

RATING: 1 = poor 9 = excellent

#### FIRST TO PLANT, FIRST TO FEED.

Excellent recovery from grazing or cutting, the fast growing nature of Betta Graze and its cold tolerance, means it is the first forage sorghum you can plant and the first you can feed to any type of livestock. Betta Graze is highly palatable and is highly suited to general grazing, hay production and round bale silage.

## PIONEER® BRAND

### MEGA SWEET

|                             |   |
|-----------------------------|---|
| Early seedling vigour       | 5 |
| Beef grazing                | 9 |
| Dairy grazing               | 6 |
| Sheep grazing               | 4 |
| Hay making                  | 5 |
| Fast feed                   | 5 |
| Late Summer/carry over feed | 9 |
| Pit silage                  | 9 |
| Round bale silage           | 6 |

RATING: 1 = poor 9 = excellent

#### THE FLEXIBLE FORAGE SORGHUM.

Mega Sweet is attractive to stock at any stage of growth and increases its feed value and sweetness as it matures. Mega Sweet can be planted early in the season, mid season or late season for late Summer and carry-over feed. Mega Sweet can be used for grazing or quality silage production but should be your first choice for grazing cattle. It is especially suited to beef enterprises and can give exceptional weight gains.

## PIONEER® BRAND

### GRAZE-N-SILE

|                             |   |
|-----------------------------|---|
| Early seedling vigour       | 5 |
| Beef grazing                | 5 |
| Dairy grazing               | 4 |
| Sheep grazing               | 4 |
| Hay making                  | 5 |
| Fast feed                   | 4 |
| Late Summer/carry over feed | 5 |
| Pit silage                  | 9 |
| Round bale silage           | 6 |

RATING: 1 = poor 9 = excellent

#### THE BEST CHOICE FOR PIT SILAGE PRODUCTION.

Graze-N-Sile is a tall, grain-bearing forage sorghum hybrid. These unique attributes mean Graze-N-Sile produces high quantities of silage with high energy content. Graze-N-Sile is the ideal substitute for corn silage in dryland areas or in limited irrigation situations.

## FOR MORE INFORMATION, CONTACT YOUR LOCAL TERRITORY SALES MANAGER

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BUSINESS

