RECOMMENDED

PIONEER CROP CREDIT
Club Pioneer growers can buy Pioneer® brand seed and delay payment for six months (a 6% administration charge is added to the cost of the seed).

CORN/MAIZE

TRAIT CHARACTERISTICS NOTES

• GRAIN YIELD FOR MATURITY
  Valid to compare hybrids of a similar maturity (CRM). (+ or - 4 CRM)
  * 9 = High grain yield for the CRM

• HUSK COVER
  Measures the length and tightness of the husk cover.
  * 9 = Complete coverage of grain through to harvest
  * 9 = Tall 1 = Short

• COB ROT RESISTANCE
  * 9 = Shows no symptoms of cob rot
  * 9 = Ability to handle hot dry stress conditions

• DROUGHT TOLERANCE
  * 9 = Excellent stress tolerance
  * 9 = Ability to handle hot dry stress conditions

• NORTHERN LEAF BLIGHT
  * 9 = Complete free of NLB
  * 9 = Excellent ability to maintain green leaves during grain fill and good late season plant health

• WHOLE PLANT DIGESTIBILITY
  Whole plant digestibility percentage (DM basis) as predicted by NIRS.
  * 9 = Very high whole plant digestibility.
  * 9 = Very high whole plant digestibility

THE NEXT GENERATION PIONEER® BRAND GRITTING HYBRID. TRIALS HAVE PROVEN IT IS THE HIGHEST YIELDING PROCESSING HYBRID IN AUSTRALIA.

Best uses: Processing hybrid (grit, feed, silage)

- Trials have proven this is the highest yielding processing hybrid in Australia
- A unique Australian-bred corn developed for processing markets
- Suitable for irrigation or dryland
- Good disease tolerance
- Excellent stalk strength
- High quality grain
- Suited for early or late plant in most regions

RATING: 1 = poor 9 = excellent

FULL SEASON
P1756 CRM 117

<table>
<thead>
<tr>
<th>Region</th>
<th>Optimum planting times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. North Australia (Includes North QLD, NT and WA)</td>
<td>Mar to July to Nov to late-Jan</td>
</tr>
<tr>
<td>2. Central Queensland</td>
<td>Aug to mid-Sept to mid-Jan to late-Feb</td>
</tr>
<tr>
<td>3. Wide Bay and Burnett</td>
<td>Late-Aug to Oct to late-Nov to mid-Jan</td>
</tr>
<tr>
<td>4. Darling Downs and Western Downs</td>
<td>Late-Aug to Oct to Dec to mid-Jan</td>
</tr>
<tr>
<td>5. South East QLD and North Coast NSW</td>
<td>Sept to Oct to Dec to early-Jan</td>
</tr>
<tr>
<td>6. Border River and Northern NSW</td>
<td>Mid-Aug to late-Sept to Dec to early-Jan</td>
</tr>
<tr>
<td>7. Liverpool Plains</td>
<td>Mid-Sept to mid-Nov</td>
</tr>
<tr>
<td>8. Central West NSW</td>
<td>Sept to Oct to Dec to early-Jan</td>
</tr>
<tr>
<td>9. Riverina</td>
<td>Sept to Nov</td>
</tr>
<tr>
<td>10. Northern Victoria and Southern NSW</td>
<td>Oct to Nov (grain) to Oct to Dec (silage)</td>
</tr>
<tr>
<td>11. Hunter Valley, Sydney Basin and Central and Northern Coast of NSW</td>
<td>Oct to Dec</td>
</tr>
<tr>
<td>12. South East of South Australia</td>
<td>Oct to mid-Dec</td>
</tr>
<tr>
<td>13. Western Districts of Victoria</td>
<td>Oct to Dec</td>
</tr>
<tr>
<td>14. Gippsland</td>
<td>Oct to Dec</td>
</tr>
<tr>
<td>15. Northern Tasmania</td>
<td>Oct to Dec</td>
</tr>
</tbody>
</table>

Recommended for regions
1 2 3 4 5 6 7 8 9 10 11

COMMENTS

*UNDER EVALUATION BY END USERS*

FULL SEASON SILEAGE AND COASTAL GRAIN SPECIALIST.

Best uses: Silage and grain

- A tall plant with excellent silage yield
- High tolerance to Northern Leaf Blight
- Exceptional late season plant health
- Suitable for all planting times
- Hard textured, flinty grain
- Ideal for coastal and northern regions as well as high yielding silage production areas

RATING: 1 = poor 9 = excellent

FULL SEASON
P2307 CRM 123

<table>
<thead>
<tr>
<th>Region</th>
<th>Optimum planting times</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Northern Victoria and Southern NSW</td>
<td>Oct to Nov (grain) to Dec to early-Jan</td>
</tr>
<tr>
<td>11. Hunter Valley, Sydney Basin and Central and Northern Coast of NSW</td>
<td>Oct to Dec</td>
</tr>
<tr>
<td>12. South East of South Australia</td>
<td>Oct to mid-Dec</td>
</tr>
<tr>
<td>13. Western Districts of Victoria</td>
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<td>Oct to Dec</td>
</tr>
<tr>
<td>15. Northern Tasmania</td>
<td>Oct to Dec</td>
</tr>
</tbody>
</table>

Recommended for regions
1 2 3 4 5 6 7 8 9 10 11

COMMENTS

TOP END YIELD FROM AN IT HYBRID.

Best uses: Feed grain, silage and processing (grit*)

- Imidazolinone-tolerant (IT) hybrid with excellent yield for maturity
- Widely adapted to a range of growing conditions
- Suited to irrigated and dryland
- Excellent stress tolerance
- Good disease resistance against Northern Leaf Blight and cob rots

RATING: 1 = poor 9 = excellent

FULL SEASON
P1813-IT CRM 118

<table>
<thead>
<tr>
<th>Region</th>
<th>Optimum planting times</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Northern Victoria and Southern NSW</td>
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<tr>
<td>15. Northern Tasmania</td>
<td>Oct to Dec</td>
</tr>
</tbody>
</table>

Recommended for regions
1 2 3 4 5 6 7 8 9 10 11

COMMENTS

*UNDER EVALUATION BY END USERS*
**NEW IN 2015**

**MID SEASON PROCESSING HYBRID**

**P1414 CRM 114**

- Grain yield for maturity: 9
- Grain cover: 7
- Husk yield for maturity: 9
- Plant height: 7
- Cob rot resistance: 7
- Drought tolerance: 8
- Northern Leaf Blight: 7
- Silage yield for maturity: 8
- Staygreen: 8

**RATING:**

- Whole plant digestibility: 8

**COMMENTS:**

- A unique Australian-bred hybrid developed for the processing market (milling, grits and corn chips)
- High yielding: Trials have proven this out-yields all other mid-season processing hybrids currently available
- Suitable for irrigation and dryland
- Very good resistance to Fusarium ear rot
- Combination of stalk strength, staygreen, leaf disease resistance and drought tolerance makes P1414 ideal for early or late planting

---

**MID SEASON**

**32P55 CRM 114**

- Grain yield for maturity: 9
- Grain cover: 7
- Husk yield for maturity: 9
- Plant height: 7
- Cob rot resistance: 7
- Drought tolerance: 8
- Northern Leaf Blight: 7
- Silage yield for maturity: 8
- Staygreen: 8
- Whole plant digestibility: 8

**RATING:**

- Whole plant digestibility: 8

**COMMENTS:**

- Combination of stalk strength, good resistance to Fusarium ear rot
- Suitable for irrigation and dryland
- High yielding and high quality silage
- Our highest yielding feed hybrid
- Replaced 31G66
- A strong trait combination of stalk strength, drought tolerance, staygreen and cob rot resistance

---

**MID SEASON**

**P1467 CRM 114**

- Grain yield for maturity: 9
- Grain cover: 7
- Husk yield for maturity: 9
- Plant height: 7
- Cob rot resistance: 7
- Drought tolerance: 8
- Northern Leaf Blight: 7
- Silage yield for maturity: 9
- Staygreen: 8
- Whole plant digestibility: 8

**RATING:**

- Whole plant digestibility: 8

**COMMENTS:**

- Ideal silage option with excellent silage yield
- Excellent top end grain yield for maturity
- Strong cob rot resistance and drought tolerance
- Dual purpose grain and silage hybrid
- Excellent agronomic profile

---

**MID SEASON**

**P1070 CRM 110**

- Grain yield for maturity: 9
- Grain cover: 6
- Husk yield for maturity: 7
- Plant height: 7
- Cob rot resistance: 7
- Drought tolerance: 8
- Northern Leaf Blight: 7
- Silage yield for maturity: 9
- Staygreen: 7
- Whole plant digestibility: 9

**RATING:**

- Whole plant digestibility: 9

**COMMENTS:**

- Outstanding grain yield for maturity
- Excellent quality silage with high grain content
- Excellent grain yield for maturity
- Late season silage option

---

**SHORT SEASON**

**P0021 CRM 100**

- Grain yield for maturity: 9
- Grain cover: 5
- Husk yield for maturity: 6
- Plant height: 5
- Cob rot resistance: 6
- Drought tolerance: 6
- Northern Leaf Blight: 7
- Silage yield for maturity: 9
- Staygreen: 6
- Whole plant digestibility: 8

**RATING:**

- Whole plant digestibility: 8

**COMMENTS:**

- Outstanding new quick dual purpose hybrid with high yield for maturity
- Best uses: Feed and grain silage
- Excellent grain yield for maturity
- Excellent early growth
- Early maturity grain option

---

**SHORT SEASON**

**P9400 CRM 94**

- Grain yield for maturity: 9
- Grain cover: 5
- Husk yield for maturity: 6
- Plant height: 8
- Cob rot resistance: 6
- Drought tolerance: 7
- Northern Leaf Blight: 7
- Silage yield for maturity: 9
- Staygreen: 6
- Whole plant digestibility: 8

**RATING:**

- Whole plant digestibility: 8

**COMMENTS:**

- Outstanding new quick dual purpose hybrid
- Best uses: Feed and grain silage
- Excellent grain yield for maturity
- Excellent early growth
- Early maturity grain option
- Late season silage option

---
The new Full season Pioneer® hybrid P1756 corn is attracting interest from end users as a high quality processing type.

This is excellent news for local farmers with P1756 performing particularly well in trial sites across Australia and in commercial blocks last season.

In the Pioneer Strike trials, P1756 was the highest yielding commercial processing hybrid and looked an excellent fit for processing, feed and silage.

Pioneer corn product manager, Rob Crothers, said Allied Mills processed a sizable tonnage trial of the hybrid after the 2013 and 2014 harvest which was delivered to Kellogg’s in Sydney for evaluation through their plant.

Defiance maize mill in Warwick also processed a volume of P1756 for Kellogg’s in 2014. Their maize procurement manager Rodney Walker said they were very happy with the initial run through the plant.

The feedback from Kellogg’s has been positive and early indication show they are looking to purchase more P1756 grits in 2014/15.

"Pioneer also undertook a trade mission to South Korea early in 2014 to meet with maize importers from that country and detail the benefits of P1756 in their enterprises,” said Rob.

"The mission focused on promoting the quality aspects of P1756 and to explain the transition in Australia from the benchmark 32P55 hybrid.

"32P55 has been a high yielding and high quality option for a number of seasons for growers throughout Australia," Mr Crothers said.

"Pioneer is moving to P1756 because of its higher yield and improved quality attributes for processing markets.”

He said the feedback from South Korean maize importers had been very positive, with many of the major players keen to purchase parcels of P1756 along with 32P55 the coming season.

Pioneer has produced good supplies of P1756 for the 2014 planting season.
HIGH YIELDS FROM NEW CORN HYBRID

A new corn hybrid produced average yields of 17 to 18 tonnes per hectare in the best result ever achieved for Rob Black, on his Coleambally property, in the Coleambally Irrigation region of southern New South Wales.

Mr Black said the Pioneer® hybrid P1467 produced more grain than any other corn he has grown in the past, with the yield monitor in the harvester showing some areas of the paddock producing yields of up to 24 tonnes per hectare. The harvester belonged to a contractor who said the corn was the best he had ever harvested.

“He said he’d never harvested anything like it before. Even if the monitor was 10 per cent out, it was still a very good result,” Mr Black said.

P1467 has been one of the highest yielding feed corn hybrid in Pioneer research trials over a number of seasons and it is producing a similar result in commercial fields.

The cooler conditions were a factor in producing the higher yields although there were many other elements that contributed to the success of the corn.

“There are a lot of different things that contribute to yield.”

Mr Black said the 40 hectare paddock had been fallowed into beds and bays in the summer and made ready for the corn plant in the spring.

He said the new configuration really helped the irrigation water wet the soil profile across the paddock and ensured excellent establishment and growth through the season.

The pick of the paddock was a border check area with a 1 in 500 slope which yielded between 19 and 20 tonnes per hectare. A planting rate of 82,000 seeds per hectare was used with 300 units per hectare of nitrogen spread across the paddock during the season.

Small amounts of rainfall at seeding helped the establishment and Mr Black said he kept the water up to the crop right throughout the season.

AGRONOMY TIPS

WHAT DAMAGE IS CAUSED BY COLD, WET WEATHER AND WATERING UP?

In some years, spring stand establishment problems can be severe due to saturated soils, cold soil temperatures, frost injury, herbicide injury, nitrogen deficiencies, seed decay and seedling blights. In some instances seed decay and seedling blight may progress into crown decay resulting in even more severe stunting and yellowing of plants.

Conditions which delay seedling development and emergence give seed decay and seedling blight fungi more of an opportunity to attack developing corn seedlings.

Seed decay and seedling blights of corn are generally caused by soil-inhabiting fungi species such as Pythium, Fusarium, Diplodia, Rhizoctonia and Penicillium. These fungi may rot the seed prior to germination or cause pre-emergence or post-emergence seedling blight.

Affected seeds are usually discoloured and soft and may be overgrown with fungi. Rotted seed may be difficult to find because they decompose very rapidly and soil adheres fairly tightly to the decomposing seed.

With pre-emergence seedling blights, the seed germinates but the seedlings are killed before they emerge from the soil. The coleoptile and primary roots are usually discoloured and have a wet, rotted appearance.

Most of the fungi which cause seed decay and seedling blight of corn may also contribute to decay of the permanent root system and crown rot of young plants. Tips of the permanent root system may be water soaked and discoloured with the outer layers sloughing off.

The Pythium, Fusarium, Diplodia, Rhizoctonia and Penicillium species are the primary cause of seed decay, seedling blight and crown decay. If conditions are favourable for germination and emergence, these fungi may not have the opportunity to invade seed, germinating seed or young seedlings so seed decay, seedling blights and crown rot will not be significant problems. On the other hand, conditions that are not favourable for germination and emergence, give these soil fungi more time to attack the seed and developing plants.

Numerous other factors also contribute to early season corn establishment problems. Insect damage, nutrient imbalances, herbicide injury, soil conditions and environmental factors, especially saturated soil conditions and oxygen deprivation, may also cause or contribute to early season corn establishment problems. Corn seedling blights are more severe in wet soils, from post plant irrigation or in soils that have been compacted or remain wet for an extended period of time. If soil temperatures are below 12°C the wet soil conditions favour Pythium seed decay and seedling blight. Disease severity is also affected by planting depth, soil type, seed quality, mechanical injury to seed, soil crusting, herbicide injury or other factors which delay germination and emergence of corn.

Planting high quality seed into a good seedbed when soil temperatures are above 12°C and rising will help minimise the potential for early season problems. Virtually all field corn seed comes with a fungicide seed treatment.

When evaluating corn stands this season, it is important to check several plants to determine the extent of damage to the initial root systems, the mesocotyls and the permanent root systems.

“Planting high quality seed into a good seedbed when soil temperatures are above 12°C and rising will help minimise the potential for early season problems.”

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Sorghum

**MEDIUM MATURITY**
- **G22**
- General appearance: 8
- Head exertion: 6.5
- Height uniformity: 8.5
- Head Fusarium: 6.5
- Stress lodging: 8
- Tilling: 6.5
- Early spring plant vigour: 8

**MEDIUM MATURITY**
- **G99**
- General appearance: 7.5
- Head exertion: 7
- Height uniformity: 7.5
- Head Fusarium: 6.5
- Stress lodging: 8.5
- Tilling: 6
- Early spring plant vigour: 7

**MEDIUM-QUICK MATURITY**
- **G33**
- General appearance: 8
- Head exertion: 6.5
- Height uniformity: 8.5
- Head Fusarium: 6.5
- Stress lodging: 8.5
- Tilling: 6
- Early spring plant vigour: 7

**AN EVEN HYBRID WITH HIGH PERFORMANCE.**
- Suitable for all growing districts dryland and irrigation
- Excellent height uniformity
- Very good head length
- A good option for cool starts
- Low to moderate staygreen
- Very attractive bright orange grain
- Excellent standability
- Good grain size
- Sought after by the bird seed market

**COMMENTS**

**HIGH YIELD FOR QUICKER MATURITY.**
- A good option for cool starts
- Mid/quick flowering with excellent yield for maturity
- Low staygreen for quick harvest drydown
- Very good grain size
- Red grain colour
- Short plant stature with a semi-open head type
- High top end yield with excellent standability
- Standard spray-out management applies
- Irrigated or dryland

**COMMENTS**

**DEFENSIVE TRAIT COMPARISON TABLE FOR NEW GENERATION SORGHUM HYBRIDS**

<table>
<thead>
<tr>
<th>Agronomic Description</th>
<th>G33</th>
<th>G22</th>
<th>G99</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maturity</strong></td>
<td>M-Q</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td><strong>General Appearance</strong></td>
<td>8.0</td>
<td>8.0</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>Head Exertion</strong></td>
<td>6.5</td>
<td>6.5</td>
<td>7.0</td>
</tr>
<tr>
<td><strong>Height Uniformity</strong></td>
<td>8.5</td>
<td>8.5</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>Head Fusarium</strong></td>
<td>5.5</td>
<td>6.5</td>
<td>6.5</td>
</tr>
<tr>
<td><strong>Stress Lodging</strong></td>
<td>8.5</td>
<td>8.0</td>
<td>8.5</td>
</tr>
<tr>
<td><strong>Midge Resistance</strong></td>
<td>6</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>Staygreen</strong></td>
<td>low</td>
<td>low-moderate</td>
<td>moderate-high</td>
</tr>
<tr>
<td><strong>Tillers</strong></td>
<td>moderate</td>
<td>moderate</td>
<td>low-moderate</td>
</tr>
<tr>
<td><strong>Grain Size</strong></td>
<td>very good</td>
<td>good</td>
<td>excellent</td>
</tr>
<tr>
<td><strong>Early Spring Plant Vigour</strong></td>
<td>7</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

1 = low/poor observation of trait  9= high/strong observation of trait

**PIioneer® Brand Sorghum**

**A Big Winner for Darling Downs Grower**

For southern Queensland farmer David Bailey, Pioneer® brand G33 sorghum completed his trifecta of wins in the Toowoomba Show Cropping Competition.

The Brookstead grower had previously taken out the wheat section of the show twice, but won the sorghum competition for the first time last year.

The winning G33 sorghum, from the 2012/13 season, was planted on a full profile of moisture and yielded over 10 tonnes per hectare.

“The crop was exceptional, it had good head size, good grain size and weight, it stood up really well and the harvestability was also good.

It was quite a surprise with the amount of grain that was coming off. I was really pleased to take out the Toowoomba Show prize with such a nice crop of sorghum,” he says.

Following the Toowoomba Show winning crop of 2012/13, last summer was a very tough season for the Bailey’s.

In fact, David’s father believes it was one of the hardest summers he’s seen at ‘Denby’ since the family moved there in 1961.

“We planted our G33 in the first week of October on marginal moisture, aiming for around 70-thousand seeds per hectare.

The way the conditions were, I might have been lucky to get 50-thousand seeds per hectare established and even then it was patchy,” David says.

With little to no in-crop rainfall for the summer, David believes the thinner crop actually turned out to be a positive.

“It was just a battle right through really, but at the end of the day we did have a reasonable profile of moisture under that sorghum and we went very close to 5 tonnes per hectare, with good grain quality.

Sometimes you’re better off having a slightly thinner plant stand in a dry season - you’ll always grow a crop on a thinner plant stand than you will when your plant stand is a bit thick in a dry season,” he explains.

With the good performance of the G33 in the dry 2013/14 summer, David already has plans for the variety moving forward.

“We’ve always been quite happy with the G33, it’s performed as good if not better than any of the other varieties that we’ve had.

I’ll always have a mix of it in my cropping rotation because it’s up there with some of the best yielders,” he concludes.
AGRONOMY TIPS
Sorghum Stalk Lodging

Stalk lodging is a continual threat when growing grain sorghum under dryland conditions. When sorghum is stressed during grain-fill, the plant will mobilize crown and root starch reserves in order to meet increasing seed development needs. When this happens, the roots and stalk are weakened, predisposing plants to lodging. Immature sorghum that loses leaf tissue to frost will also mobilize root and crown starch reserves in a similar manner. Lodging results from interactions of:

- Climatic stresses (heat, moisture)
- Other stresses (e.g. physiological and herbicide/dessication)
- Anatomical stalk weakness
- One or more plant pathogens - the primary fungal stalk rots which cause sorghum standability problems are Charcoal stalk rot and Fusarium stalk rot.

SUGGESTIONS FOR REDUCING SORGHUM LODGING

- Target optimum plant establishment. Sorghum possesses a tremendous ability to compensate for thin stands.
- Plant disease resistant hybrids. Pioneer® brand hybrids are rated on stress lodging and cold tolerance.
- Plant strong-stalk hybrids. Hybrids differ in stalk and root strength. Note individual characteristic ratings when choosing sorghum hybrids.
- Use no-till techniques. No-till results in less water stress and improved plant health during grain-fill.
- Implement a balanced fertility program. Any nutrient deficiency stresses the sorghum crop, leading to standability concerns. Avoid potassium deficiencies and excessive nitrogen rates to improve standability.
- Manage insect pressure.
- Manage weed pressure.
- Rotate fields and crops. Disease pathogen levels can be reduced significantly with rotation to non-host crops such as wheat.
- Use best management practices for planting. Sorghum can have trouble rooting downward in the seedling stage. This is a phenomenon known as “rootless sorghum syndrome.” When a sorghum plant tries to establish a crown and brace roots in hot soil, the high soil surface temperature can actually restrict growth. Rootless sorghum syndrome is exacerbated by loose soil conditions, which prevent good root to soil contact. Growth regulator herbicides also contribute to rootless sorghum syndrome, when used improperly. Rootless sorghum syndrome is most common where soil has been washed or blown away from the plant crown, where roots are initiated.

ASSESSING FROSTED SORGHUM

Grain fill can continue after a light frost if:
- Sufficient leaf area remains undamaged, not less than 60% of bottom leaves remaining green.
- The stalk is not frozen allowing the delivery of nutrients and carbohydrates to the developing grain.
- Temperatures are warm enough after the frost to drive growth again as the plants attempt to recover from cold shock.

THE IMPORTANCE OF USING BETTA STRIKE® TREATED SEED.

Research has consistently shown that establishing the right plant population is critical for achieving maximum yields. In corn particularly, an even plant stand is vital for a crop to reach its genetic yield potential. Betta Strike® treated corn and grain sorghum seed from Dupont Pioneer gives you the best chance of an optimum plant stand by protecting your investment in seed from seedling pests and diseases.

The benefits of Betta Strike® treated seed are:
- Precise amount of insecticide and fungicide applied to every seed
- The latest crop protection products that reliably perform and protect your seeding crop from pests and diseases
- Applied at a low dose for minimal impact on the environment
- Delivers a high degree of seed safety to the planter operator
FORAGE SORGHUM

**PIONEER® BRAND FORAGE SORGHUM HYBRIDS: QUALITY FEED FOR GRAZING, HAY OR SILAGE**

- Fine stems and disease-free leaves
- High sugar content
- Cold tolerant means fast early growth
- Sorghum x Sudan grass

**HYBRID MANAGEMENT**

- **SPACINGS**
  - 12-16 kg/ha
  - 10 to 30 kg/ha
  - 8 to 12 kg/ha
  - 100-150,000 seeds/ha
- **IRRIGATION**
  - **DRYLAND**
  - **GOOD**
  - **MARGINAL**
  - **REQUIRED**
  - **RECOMMENDED**

**GRAZING TIPS**

- **SPECIAL CHARACTERISTICS**
  - Super sweet fine stems produce excellent palatability and quality. Initial grazing between 70 cm and 120 cm tall and follow up grazing between 50 cm and 120 cm tall.

**GRAZING SEASON**

- Recommended for dryland situations and winter grazing
- Adaptable early or late planting.
- Superfine stems
- Prolific tillering habit
- Wide area adaption

**STUDIES HAVE SHOWN SUDANS POSE A LOWER RISK OF PUSSIC ACID TOXICITY THAN SORGHUM TYPE FORAGES**

- **BETTA GRAZE**
  - **Cold start**
  - **Beef grazing**
  - **Dairy grazing**
  - **Sheep grazing**
  - **Hay making**
  - **Fast feed**
  - **Round bale silage**

**MEGA SWEET**

- **Cold start**
- **Beef grazing**
- **Dairy grazing**
- **Sheep grazing**
- **Hay making**
- **Fast feed**
- **Round bale silage**

**GRAZE-N-SILE**

- **Cold start**
  - **Beef grazing**
  - **Dairy grazing**
  - **Sheep grazing**
  - **Hay making**
  - **Fast feed**
  - **Round bale silage**

**THE NEXT GENERATION HYBRID: A UNIQUE AUSTRALIAN PRODUCT, BRED FOR AUSTRALIAN CONDITIONS.**

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

- **FORAGE SORGHUM 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, mean it is the first forage sorghum you can plant and the first you can feed to any type of livestock.

- **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.

- **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 maize silage in dryland areas or in limited irrigation situations.

**COMMENTS**

- Super sweet fine stems produce high quality hay and round bale silage suitable for sheep and cattle. Adaptable early or late planting.
- High quality, very palatable hay at all stages of maturity and growth.
- Super sweet and leafy
- High quality, very palatable hay at all stages of maturity and growth.
- Suited for dryland situations and intensive irrigation.

**SPECIAL COMMENTS**

- Quick to feed with super sweet fine stems.
- Best cold tolerance – first to plant.
- Grain-bearing feed value increases with maturity.
- 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.
Pioneer® brand hybrid Super Sweet Sudan (SSS) performed so well last summer for NSW farmer Paul Gooley, it’s set to become his main forage crop.

Paul initially planted millet as a forage crop into alluvial black soil on his property east of Casino, in northern NSW, but it suffered in the dry conditions.

“We really didn’t get a good germination with the millet, so we went through and scarified the paddock and then put SSS in the next paddock,” he explains.

The crops were both sown on the same day in early January, with the Siberian Millet being planted at 30 kilograms per hectare and the SSS at 15 kilograms per hectare.

“While we didn’t plant it as early as we would have liked, we got really good establishment in the 40 acres of SSS,” he explains. Paul says while he was impressed with the exceptional performance of the SSS, the conditions were just too dry for the millet.

“We’ve grown Siberian Millet over a lot of years and quite frankly I really think the SSS now gives us another option. We’ll definitely plant it again, in fact we’ll probably consider replacing the millet with this,” he says.

One of Paul’s paddocks produced 380 round bales off 9 hectares over 3 cuts – meaning the silage yielded 25 tonnes per hectare.

“It was a great result given the dry season, it certainly outperformed the millet hands-down, and there was no difference in the fertiliser application or the ground preparation. The SSS germinated well, tillered really well and put in an all-round exceptional performance,” Paul says.

Paul says the production of the SSS was such that they cut and round-baled the crop into silage before on-selling it.

“With the value of fodder this year, we couldn’t afford to put cattle on it – we run a mixed farming operation and basically there was a lot more money in retailing the product versus grazing it with cattle,” he explains.

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PIONEER® BRAND HYBRID OUTPERFORMS COMPETITORS IN DRY SEASON

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“Summer crops 2014-2015”

AGRONOMY TIPS

SUPER SWEET SUDAN (SSS)

PLAN FOR ADEQUATE FERTILITY

Nutrient needs of forage sorghums can be greater than other forages because they produce higher levels of dry matter. Fertilise forage sorghums as you would corn harvested for silage.

It’s important to note that poor nutrition will produce poor quality feed.

Super Sweet Sudan (SSS) forage requires good seed bed preparation to ensure good field emergence.

Observe the following:

• Sow into a well prepared soil that has good tilth, free of large clods, large trash burden, that has a firm base to where seed is intended to be placed.

• It’s not recommended to sow SSS into existing pasture fields unless some form of herbicide pasture topping or glyphosate spray application has been performed in advance to ensure good germination moisture is present and no competition in the early growth phases.

• Spreader board cast/harrow incorporated sowing may give varying field establishment. It is critical to place seed with adequate soil coverage and moisture.

• Combine seeder (with fine side of run), pasture seeder drill with disc or tyne, presswheel, harrows and field roller provided the best establishment through commercial trial evaluations in 2013/2014.

• Ideal sowing depth is 2.5 – 3.5 cm, when pressed with field roller/presswheel. (Dependant on soil type, conditions and seed drill type planter)

• Ensure very good soil moisture is present during germination, sudan forages require at least 4 days of good moisture to be present with the seed, to enhance germination.

• Soil temperature should be 15°C and rising during germination, to reduce the risk of dampening off/pythium roots diseases associated with cool wet – damp soils.

• Atrazine & Metolachlor herbicide can be considered for use to control annual grass weeds only when SSS seed is Betta Strike® Plus treated. Apply herbicides in accordance to label rates.

“Summer crops 2014-2015”

AGRONOMY TIPS

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INOCULANTS

11CFT

REVOLUTIONARY TRIPLE-STACK INOCULANT.

Use: Maize silage specific
- Reduces dry matter loss resulting from “front-end” fermentation losses and “back-end” feed-out losses
- Improves digestibility. An excellent option for high producing herds fed high levels of forage
- Allows for reduction in concentrate and protein supplementation to reduce total feed costs
- Enables silage to be fed out up to one day in advance*

COMMENTS

RECOMMENDED

1127

PRODUCT 1127

Crop: Pasture & cereal

Fully researched and proven ✓
ISO 9002 accredited ✓
Improved fermentation ✓
Aerobic stability ✓
Improved fibre digestibility ✓

PASTURE SPECIFIC BACTERIA.

Use: Pasture and cereal silage
- Improves fermentation, retains nutrient content and enhance digestibility of pasture silage
- Improves the feed value of milk or meat production of pasture silage

11G22

PRODUCT 11G22

Crop: Pasture & cereal

Fully researched and proven ✓
ISO 9002 accredited ✓
Improved fermentation ✓
Aerobic stability ✓
Improved fibre digestibility ✓

DUAL PURPOSE INOCULANT.

Use: Pasture and cereal silage
- Contains pasture specific bacteria and L.buchneri
- Improves fermentation
- Reduces heating in the pit and during feedout

1174

PRODUCT 1174

Crop: Multi-crop

Fully researched and proven ✓
ISO 9002 accredited ✓
Improved fermentation ✓
Aerobic stability ✓
Improved fibre digestibility ✓

PROVEN INOCULANT*.

Use: Multi-crop Inoculant
- Ideal for cereal, legume, pasture and corn silage
- Helps improve fermentation, retain nutrient content and enhance digestibility of ensiled forages

11C33

PRODUCT 11C33

Crop: Maize

Fully researched and proven ✓
ISO 9002 accredited ✓
Improved fermentation ✓
Aerobic stability ✓
Improved fibre digestibility ✓

DUAL PURPOSE INOCULANT.

Use: Maize silage specific
- Improves silage quality providing a low final pH and a desirable silage fermentation acid profile
- Reduces heating, decreases feed-out losses
- Enables silage to be fed out one day in advance*

COMMENTS

RECOMMENDED

*Proven in Independent Australian animal trials.
Dupont Pioneer’s approach to selecting the best new hybrids remains unique thanks to our Summer Crop STRIKE trial program. STRIKE stands for Seed Technology Research in Key Environments.

Summer Crops Product Evaluation Leader Richard Fraser, says the objective of STRIKE is to test potential new hybrids over multiple seasons in many locations across Australia.

“Over a minimum of two years we are able to identify hybrids that perform consistently and meet our minimum trait package across many locations. Those hybrids go on to be advanced and become commercially available for Australian farmers to grow.

“The key is testing hybrids on-farm, over multiple years, in the same conditions that farmers would experience,” Richard says.

Richard explains that one of the things that makes the STRIKE program an industry leader is the design of the trials.

“It’s a replicated, randomized trial design with diagonal check hybrids entered throughout the trial, ensuring the data is accurate and not affected by paddock variation, environment or other variables,” he says.

“To plant this type of trial, we have invested in two new GPS operated planters, new trucks, trailers and a second small plot header. A total investment package of approximately $1.2 million”, Richard says the data gathered from STRIKE trials in a dry season has proven to be very valuable.

“It’s not always about high-yielding sites – with some areas getting record low rainfall, we get to test the defensive traits of our hybrids too.

“We also get to look at normal yielding sites and some high yielding sites as well, so generally most seasons we look at all possible environments. This is one benefit of having our trial sites scattered across growing areas, strengthening our confidence for selecting adaptable hybrids,” he explains.

Another advantage of the STRIKE program is that Pioneer can test new hybrids much earlier than before.

“Our Research team can recommend new hybrids that are standing out in the Research programs, and we can enter these into STRIKE. This enables us to identify hybrids that are showing potential and then test them over more years in more locations,” he concludes.

By the time a hybrid has been commercially released, you can be assured it has been tested over multiple years – usually around 5-6 years, and in multiple locations,” he said.
CLUB PIONEER IS LAUNCHING WITH A NEW WEBSITE, NEW LOOK AND NEW SIMPLIFIED CLAIM PROCESS. AS A LOYAL PIONEER CUSTOMER, WE BELIEVE YOU DESERVE TO BE REWARDED AND CLUB PIONEER IS OFFERING THE BEST REWARD OF ALL – CASH!

Through Club Pioneer you earn points for every Pioneer purchase you make, and for selected services you can offer to Pioneer. These points can then be redeemed for CASH on your very own VISA Prepaid Card!

The possibilities are endless with your own Club Pioneer VISA Prepaid Card - you can use it to make purchases anywhere VISA is accepted.

EARNING DOLLARS – IT’S EASY!
Every time you purchase a Pioneer product, login to our website clubpioneer.com.au to claim your sale! Earn points and then we’ll automatically transfer your points into dollars on your Club Pioneer VISA Prepaid Card. For services you provide to Pioneer such as being a production grower or helping us with STRIKE trials, your local area member or production team member will make sure points are credited to your account.

HOW TO CLAIM
1. After registering, log into the Club Pioneer website at clubpioneer.com.au
2. Select the ‘submit a new claim’ link on the menu
3. Follow the instructions online
4. Upload a copy of your sales receipt
5. Click on ‘submit claim’ to send us your competed claim form

PIioneer CROP CREDIT
Club Pioneer growers can buy Pioneer® brand seed but delay payment for six months (a 6% administration charge is added to the cost of the seed).

Any questions?
If you have any queries about the program you can send us an email via the Contact Us page on the Club Pioneer website, or call the Club Pioneer hotline on 1800 PIONEER.
FOR MORE INFORMATION, CONTACT YOUR DUPONT PIONEER AREA MANAGER OR PROMOTER AGENT

NSW
Area Managers
NORTHERN NSW & LIVERPOOL PLAINS
Sam Gall
M 0428 729 867
E sam.gall@pioneer.com

SOUTHERN NSW
David Coddington
M 0429 995 381
E david.coddington@pioneer.com

Promoter Agents
HUNTER VALLEY
Andrew Farr
M 0419 472 284
E palmdale87@bigpond.com.au

NORTHERN NSW
Bruce Crosby
M 0428 526 010
E bcrsoby6@bigpond.com

SOUTHERN NSW
David Burcham
M 0427 748 348
E david.burcham@dbgroup.com.au

NORTHERN RIVERS OF NSW
Kerry Handford
M 0418 247 582
E shannonseeds@aol.com

LIVERPOOL PLAINS
Adrian Dridan
M 0458 441 777
E pioneerontheplains@hotmail.com

SA
Area Manager
SOUTH AUSTRALIA
Paul Jenke
M 0408 807 809
E paul.jenke@pioneer.com

Promoter Agent
YORKE PENINSULA
Stewart McIntosh
M 0439 242 284
E stewart.mcintosh@activ8.net.au

LOWER MID-NORTH, ADELAIDE PLAINS
& BAROSSA VALLEY
Jamie Wilson
M 0407 796 202
E jamierwilson@bigpond.com

UPPER SOUTH EAST, SOUTHERN MALLEE
& MURRAYLANDS OF SOUTH AUSTRALIA
Bill Greenslade
M 0448 883 624
E bill.greenslade@gmail.com

WA
Area Manager
WESTERN AUSTRALIA
Peter Bostock
M 0427 549 826
E peter.bostock@pioneer.com

Promoter Agent
NORTHERN & CENTRAL WHEATBELT
Rob Bagley
M 0437 531 084
E horizonag@bigpond.com

VIC
Area Manager
WESTERN VICTORIA
Henk Vrolijks
M 0428 886 099
E henk.vrolijks@pioneer.com

EASTERN VICTORIA & TASMANIA
Jason Scott
M 0447 717 020
E jason.scott@pioneer.com

Promoter Agent
WESTERN DISTRICTS
Simon Tayler
M 0409 954 554
E simontayler@bigpond.com

Qld
Area Managers
WESTERN DOWNS
Rod Bidstrup
M 0408 717 430
E rod.bidstrup@pioneer.com

SOUTHERN DOWNS
Richard Fraser
M 0427 696 484
E richard.fraser@pioneer.com

CENTRAL DOWNS, GOONDIWINDI
& BORDER RIVERS
Ben Thrift
M 0437 531 084
E ben.thrift@pioneer.com

NORTHERN TERRITORY, NORTH QUEENSLAND, WIDE BAY/BURNETT, SOUTH EAST QUEENSLAND & NORTHERN RIVERS
Andrew Dieckmann
M 0408 717 229
E andrew.dieckmann@pioneer.com

CENTRAL QUEENSLAND
Ashley Wooderson
M 0417 713 023
E ashley.wooderson@pioneer.com

Promoter Agent
CENTRAL DOWNS
Wayne Postle
M 0437 131 083
E waynepostle@gmail.com

SOUTHERN DOWNS
Guy Sellick
M 0409 702 609
E g.sellick-pioneer@gmail.com

DALBY DISTRICT
Matt Naumann
M 0419 732 382
E naumann_matthew@bigpond.com

QLD
Area Managers
WESTERN DOWNS
Rod Bidstrup
M 0408 717 430
E rod.bidstrup@pioneer.com

SOUTHERN DOWNS
Richard Fraser
M 0427 696 484
E richard.fraser@pioneer.com

CENTRAL DOWNS, GOONDIWINDI
& BORDER RIVERS
Ben Thrift
M 0437 531 084
E ben.thrift@pioneer.com

NORTHERN TERRITORY, NORTH QUEENSLAND, WIDE BAY/BURNETT, SOUTH EAST QUEENSLAND & NORTHERN RIVERS
Andrew Dieckmann
M 0408 717 229
E andrew.dieckmann@pioneer.com

CENTRAL QUEENSLAND
Ashley Wooderson
M 0417 713 023
E ashley.wooderson@pioneer.com

Promoter Agent
CENTRAL DOWNS
Wayne Postle
M 0437 131 083
E waynepostle@gmail.com

SOUTHERN DOWNS
Guy Sellick
M 0409 702 609
E g.sellick-pioneer@gmail.com

DALBY DISTRICT
Matt Naumann
M 0419 732 382
E naumann_matthew@bigpond.com

For more information call 1800 PIONEER or visit www.pioneer.com

DuPont Pioneer is proud to be a member of the Australian Seed Federation (ASF), the peak industry body for the Australian seed industry. Like all ASF members, Pioneer abides by the ASF Code of Practice for Labelling and Marketing. As part of the code, information relating to the seed, coating and treatment can be found on the bag or label. In addition, a seed analysis certificate is available on request. To minimise the risk associated with buying seed, please review the ASF’s Smart from the Start checklist.

The information presented in this technical guide is from sources that are considered reliable. It is provided in good faith and every care has been taken to ensure its accuracy. DuPont Pioneer does not accept any responsibility for the consequences of any decision based on this information. A limited Product Warranty applies and can be read on the reverse side of the bag tags of all Pioneer brand seed products.