Satin II is a dull-seeded line to that has been released as a replacement for ‘Satin’ providing growers with the following key advantages;

- Superior seed quality with increased seed size and improved evenness of seed colour, size and shape.
- Possesses 20% increased yield potential over ‘Satin’.
- Improved disease resistance to both Powdery mildew and Tan spot compared to ‘Satin’.
- Improved lodging resistance and equal plant maturity compared to Satin.

Satin production has declined to virtually nil in recent years, due to difficulties associated with grain quality and marketability because of genetic drift within the variety resulting in unevenness of bean colour, lustre and size.

The release of Satin II will reinstate access to this niche market for the Australian producer. Many countries have a limited annual demand for this product and hence secure returns are achievable for high quality beans.

Production of dull-seeded green mungbeans is expected to grow to represent 10% of the Australian mungbean crop in coming years.

The bulk (80%) of Australian mungbean production is expected to remain as large-seeded bright green beans with an additional 10% of small-seeded bright green beans.

Key Considerations.

Seed segregation and varietal integrity are critical if growing two or more different mungbean varieties. Varietal mixtures are unacceptable in the market place for premium cooking, processing and sprouting grade beans, and will attract substantial discounts.

Mixtures of ‘Bright’ and ‘Dull’ seeded mungbeans will greatly reduce the value of any grain and need to be avoided.

Unless planting equipment, harvest equipment and storage facilities can be thoroughly cleaned, you should limit your planting to one variety only.

Growers should consult their local AMA processor when determining which variety to produce prior to seeding, to determine the current market requirements.

Production agronomy for Satin II is equivalent to current varieties. Best Management Practice for Mungbean is the use of AMA Approved Seed and growing your crop along with the services of a Certified Mungbean Agronomist, a list of which can be found at www.mungbean.org.au
Yield and Adaptation.

Satin II® is widely adapted to both dryland and irrigated production systems across all the main production areas in both Queensland and New South Wales.

Satin II has demonstrated a consistent yield advantage of 20% over ‘Satin’.

Satin II has been extensively evaluated in the three main Mungbean production areas, in 35 replicated trials conducted between 2003 and 2006.

Grain Quality.

Satin II® has shown superior seed quality over a diverse range of seasonal conditions with increased seed size when compared to ‘Satin’ and improved evenness of seed colour, shape and size.

Grain Yields (kg/ha).

Average yields for each of the 3 main growing regions (2003/06)

<table>
<thead>
<tr>
<th>Region</th>
<th>‘Satin’</th>
<th>Satin II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Qld</td>
<td>150</td>
<td>100</td>
</tr>
<tr>
<td>Southern Qld</td>
<td>140</td>
<td>90</td>
</tr>
<tr>
<td>New South Wales</td>
<td>130</td>
<td>80</td>
</tr>
</tbody>
</table>

Disease Reaction.

Satin II® has improved disease resistance to both Powdery mildew and Tan spot compared to ‘Satin’.

<table>
<thead>
<tr>
<th>Description</th>
<th>Tan Spot</th>
<th>Powdery Mildew</th>
<th>Halo Blight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately Resistant</td>
<td>Celera, Crystal</td>
<td>Celera, Crystal, Emerald</td>
<td>Regur</td>
</tr>
<tr>
<td></td>
<td>White Gold, Satin II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately Susceptible</td>
<td>Green Diamond, White Gold, Satin II</td>
<td>Delta, Emerald, Green Diamond</td>
<td>Crystal, Delta, Emerald, Green Diamond, Satin, Satin II</td>
</tr>
<tr>
<td>Susceptible</td>
<td>Delta</td>
<td>Berken</td>
<td>Berken, Satin</td>
</tr>
<tr>
<td>Very Susceptible</td>
<td>Berken, Satin</td>
<td>Berken</td>
<td>Celera</td>
</tr>
</tbody>
</table>

Seed Commercialisation.

Satin II® has been commercialised by the Australian Mungbean Association and is available from your AMA approved seed producer or local seed reseller, a listing of which can be found at www.mungbean.org.au.

Acknowledgements:

Dr. Merrill Ryan  Plant Breeder (Pulses), QPIF
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Stephen Donnelly  President, Australian Mungbean Association
Gordon Cumming  Pulse Development Officer, Pulse Australia
Jaye Gentry  Pulse Industry Development Officer, QPIF
William Martin  Principal Technical Officer, QPIF

GRDC national disease resistance rating scale.

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