

# Sunflower – Days to Flower (Central Queensland)



The recommended planting time for sunflowers in Central Queensland is from late January to mid-March. Mid-February to early March is considered optimal. In some seasons sunflower may also be planted in June, July and August.

During the 2014-15 season five sunflower hybrids are available in Queensland (Table 1).

**Table 1: Characteristics of Sunflower Hybrids available 2014-15**

| Hybrid        | Maturity    | End Use                |
|---------------|-------------|------------------------|
| Nuseed        |             |                        |
| Ausigold 4    | Medium-slow | Polyunsaturated        |
| Ausigold 62   | Medium      | Monounsaturated        |
| Ausistripe 14 | Medium      | Mid-oleic/Birdseed     |
| Pacific Seeds |             |                        |
| Hyleic 41     | Medium-slow | Monounsaturated        |
| Sunbird 7     | Medium      | Confectionary/Birdseed |

Source: Pacific Seeds and Nuseed websites 2014

The average days to flower for each maturity group for a range of Central Queensland planting dates is shown below in tabular and graphic forms. The exact number of days taken to flower will vary markedly depending on temperature, day length, moisture and hybrid maturity rating, so Table 2 and Figure 1 should only be used as a guide.

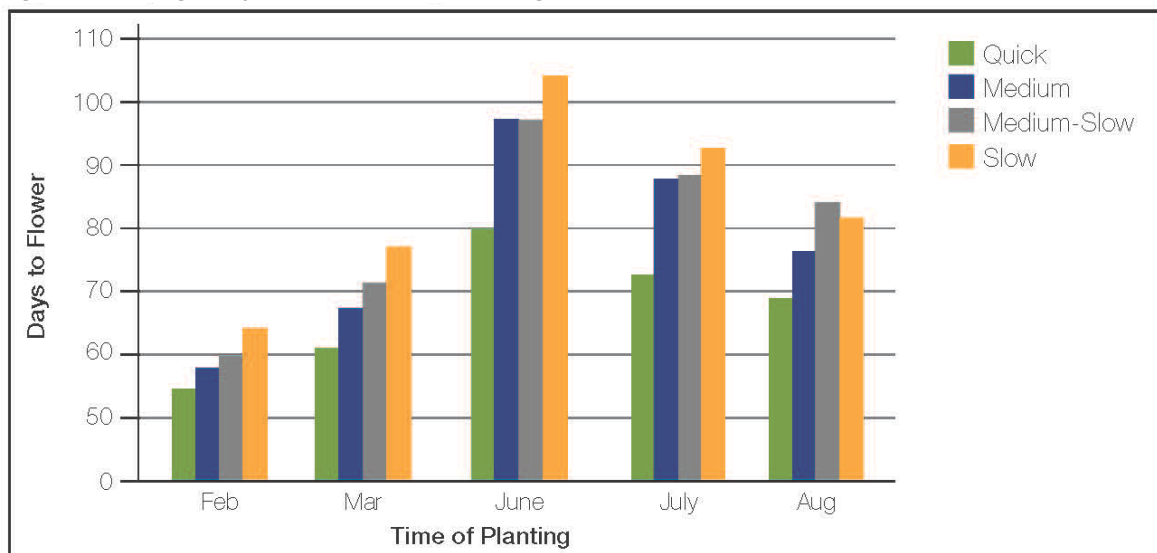
**Table 2: Average Days to Flower from Planting Date**

| Maturity | Feb | Mar | June | July | Aug |
|----------|-----|-----|------|------|-----|
| Quick    | 54  | 61  | 80   | 73   | 68  |
| Medium   | 58  | 67  | 97   | 88   | 77  |
| Med/Slow | 60  | 72  | 97   | 87   | 84  |
| Slow     | 64  | 77  | 104  | 93   | 82  |

Source: Central Queensland Advisory Notes, October 1985, Queensland Department of Primary Industries

Flowering is a critical growth stage which assists growers to match hybrid to planting date. Growers can aim to match hybrid maturity to avoid high risk periods such as heat stress, frost risk and disease.

**Figure 1: Average Days to Flower from Planting Date**



Source: Central Queensland Advisory Notes, October 1985, Queensland Department of Primary Industries

The extended maturity of all varieties must be taken into account if considering a March planting; The additional time to flower tends to be longer for late maturing varieties. Sunflowers are tolerant of frost (down to -5°C) until the 6 to 8 leaf stage. Cool (<18°C) moist conditions can favour sclerotinia infestation on a late flowering crop. Table 3 provides a planting strategy to reduce summer production risks.

**Table 3: Summer Planting Recommendation Central Queensland**

| Hybrid Maturity   |          |    |    |    |            |    |    |    |       |    |    |    |           |    |    |    |      |    |    |    |
|---|----------|----|----|----|------------|----|----|----|-------|----|----|----|-----------|----|----|----|------|----|----|----|
|   | February |    |    |    | March      |    |    |    | April |    |    |    | May       |    |    |    | June |    |    |    |
|   | 7        | 14 | 21 | 28 | 7          | 14 | 21 | 28 | 7     | 14 | 21 | 28 | 7         | 14 | 21 | 28 | 7    | 14 | 21 | 28 |
| Med Slow  |          |    | ●  |    | VEGETATIVE |    |    |    |       |    |    |    | FLOWERING |    |    |    |      |    |    |    |
| Medium  |          |    | ●  |    | VEGETATIVE |    |    |    |       |    |    |    | FLOWERING |    |    |    |      |    |    |    |
| Quick   |          |    |    | ●  | VEGETATIVE |    |    |    |       |    |    |    | FLOWERING |    |    |    |      |    |    |    |
| <span style="color: green;">●</span> Recommended Planting Time <span style="background-color: #808080; width: 15px; height: 10px; display: inline-block;"></span> Small risk of infection to flowering crops <span style="background-color: #f4a460; width: 15px; height: 10px; display: inline-block;"></span> High risk of Sclerotinia infection to flowering crops |          |    |    |    |            |    |    |    |       |    |    |    |           |    |    |    |      |    |    |    |

Source: The New Big Black Sunflower Pack, 2004, Australian Sunflower Association

If considering a spring plant, temperature during flowering is critical. Excessive temperatures during flowering and seed fill affect oil quality and quantity, as well as reducing seed yield. The critical time for heat stress is 12 to 15 days after flowering.

In addition to maturity, other issues such as end-use requirement, yielding ability (seed and oil), disease tolerance, head inclination, height and good agronomic type should be considered when selecting a hybrid.

For further information contact an accredited Sunflower Agronomist, or search online; [www.bettersunflowers.com.au](http://www.bettersunflowers.com.au) includes the Big Yellow Sunflower Pack and research papers on Central Queensland sunflower agronomy and planting date.

**References:**

- The Better Sunflowers website: [www.bettersunflowers.com.au](http://www.bettersunflowers.com.au)
- Australian Oilseeds Federation (July 2012) *AOF Better Sunflowers: The Big Yellow Sunflower Pack, agronomic course notes for growers and advisers*
- Serafin, Jenkins & Byrne, *Summer Crop Production Guide*, 2010, Industry & Investment NSW
- Central Queensland Advisory Notes, October 1985, Queensland Department of Primary Industries
- Australian Sunflower Association, 2004, *The New Big Black Sunflower Pack*

**Acknowledgements:** This information has been reproduced and updated in 2014 from *Central Queensland Advisory Notes*, October 1985, Queensland Department of Primary Industries, compiled by J. Chamberlain, and with the assistance of Nuseed and Pacific Seeds and Graham Spackman, Spackman and Associates. Better Sunflowers is presented by the Australian Sunflower Association and delivered as part of the Broadleaf Cropping Alliance, a Grains Research Development Corporation funded joint initiative between the Australian Oilseeds Federation and Pulse Australia.