

Plain English summary

The CSIRO cotton breeding program based at Narrabri has been very successful in developing varieties adapted to all cotton production regions in Australia. At least 90% of the cotton grown in Australia are varieties developed at Narrabri.

The breeding program includes many objective including: high yield, high fibre quality, disease resistance and tolerance to insect damage. These targets are applied to cotton production areas that range from hot locations such as central Queensland to cool districts such as the upper Namoi valley and southern NSW. Such diverse locations require different characteristics for optimum production.

Breeding requires large numbers of experiments and breeding lines. This program now has in excess of 15,000 yield plots at 15 different locations; there are also about 30,000 single plants harvested at the early generation stage of the breeding process.

New varieties released to the Australian cotton industry in recent years include conventional types Siokra S-101, Sicot 189, Siokra V-16 and Sicala 40 and transgenic varieties Siokra L-23i, Sicot 189i, Sicala V-2i, Siokra V-15i and Sicot 50i. There are new breeding lines close to commercial release.