

GMO cotton that makes its own colors could eliminate need for chemical textile dyes

[Colored cotton plants] are the product of CSIRO plant breeders dedicated to producing better, sustainable natural fibers that will hopefully one day lead to wrinkle-free, naturally dyed, stretchy cotton to outperform synthetic fabrics.

Colleen MacMillan leads the team of scientists who have cracked cotton's molecular color code, adding genes to make the plants produce a color.

"Having the cotton produce its own color is a game changer," Dr MacMillan said.

"We've seen some really beautiful bright yellows, sort of golden-orangey colors, through to some really deep purple," fellow scientist Filomena Pettolino said.

It will be several months before the colorful plant tissue they have created grows into flowering cotton plants; only then will the scientists be absolutely certain of their success.

Another positive sign is that colored cotton genes, inserted into green tobacco plants, have shown up as colored splotches on the leaves. If the leaves of the biotech (genetically modified) cotton are colored, the all-important fiber will be as well.

Australia's cotton industry, worth about \$2 billion annually, will be a major beneficiary.

While cotton is renewable, recyclable and biodegradable, it still needs to be dyed, and the use of sometimes harmful chemical dyes is considered a blot on the industry's environmental copybook.

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