OBJECTIVE
CottonConnect’s REEL Cotton programme, a three-year agricultural programme providing farmers with training on sustainable cotton farming practices, has been successful in increasing yield and profit, while reducing the use of water and chemical inputs.

CottonConnect wanted to assess whether the results could be replicated for other agricultural crops, and so conducted a pilot in 2018-19 with 100 farmers growing hemp in Qinggang County, Heilongjiang Province in China.

IMPACT
An impact assessment was undertaken to determine the trend after the first year of training. 10 farmers who did not receive the training were assessed as a control measure. The focus for the first year analysis was on yield, use of chemical fertilisers and pesticides, and input costs and profitability.

As a result of the implementation of sustainable agricultural practices, in comparison with the control farmers, the farmers in the hemp programme reported:

- Boosted profits by 34.9%
- Increased yields by 7.9%
- Cut input costs by 2%
- Reduced fertiliser use by 16.5%

The impact is assessed in comparison with 10 control farmers i.e. 10% of REEL hemp project farmers.
83% of the project farmers dedicate more than 60% of the land to hemp farming. This means that hemp is their major crop and is the primary source of income compared with other crops. Therefore, a 7.9% increase in yield, and 34.9% increase in profit for hemp, has a significant and positive impact on their overall income.

As part of the REEL Hemp project, farmers conducted soil testing and were provided with recommendations on optimized fertilizer usage. As a result, the project farmers used 16.5% less fertilizers than the control farmers. Overall, the project farmers’ input costs were reduced by 2%, with fertilizer costs reduced by 18.2% and labour costs reduced by 15.7%.

The impact on biodiversity, carbon footprinting and soil fertility on the farm land will be part of the monitoring and evaluation plan for the programme.

The programme analysis shows that the training in the REEL Hemp programme has generated positive socio-economic and environmental impact. CottonConnect invites brands to consider introducing the REEL programme for additional crops in their supply chains.

**TRACEABILITY**

CottonConnect works with global brands and manufacturers to run sustainable hemp programmes, and the hemp grown by these farmers, including REEL Hemp, is traceable via TraceBale (CottonConnect’s bespoke, proprietary traceability software tool which provides dynamic and potentially real time source information and chain of custody of any apparel product produced in a CottonConnect’s supply chain) all the way up to the final product.

Traceability through TraceBale starts from the farm, where the field officers record all the vital information about farmer, farm, and the cropping pattern and can be fed with data from farmers, ginners, spinners, scutchers and other processors in the chain.

“There is a growing trend for alternative, natural fibres including bast fibres. In particular, we are seeing more hemp cotton blends, and we are therefore developing the REEL programme for sustainable hemp production.”

said Wenxiang Liu, Operations and Innovation Director, China, CottonConnect.