

Powered by Amino-Carbon Technology® (ACT)

## SOIL-PLUS™ Boosts Cotton Production (China)

### Report of Improved Cotton production Using Biofeed Soil-Plus™ Soil and Crop Improvement at Huamao Farm, Fukang, Xinjiang

Chang Jianguo, Chief Farming Engineer at Huamao Farm

There are three major cotton production bases in China, middle and downstream of Yangzi River, Yellow River and Xinjiang. Among these three bases, Xinjiang is the largest production region of commercial cotton in China. According to Chinese government statistics, there are twenty million acres used to plant cotton in Xinjiang. With annual production of approximately 1.5 million tons, Xinjiang produces more than 40% of total cotton production in China, which is 8% of total cotton production in the world.

Huamao Farm of Xinjiang is located in Fukang with 2,500 acres of cotton field (Fig. 1). Since May 2008, a proof of concept project has been started to evaluate the efficiency of Biofeed SOIL-PLUS™ (regeneration activating compounds imported from the United States by Eitco in Taiwan) on increasing the quality and productivity of cotton.



Fig. 1 Cotton Field of Huamao Farm in Fukang area (photo taken in May 2008)

The proof of concept project is based on a 145 acres cotton field covered by a set of dripping system. From May to September 2008, 320ml/per acre of diluted SOIL-PLUS™ was applied to the cotton field by the dripping system each month. Furthermore, 160ml/acre foliar spray of was also used three times during this period to enhance the crop.

The farmer observed and recorded the cotton growth conditions regularly (as in Table 1.). It is known from Table 1, that the test group cotton grew much quicker and better than the blank group cotton. The height of plant, number of fruit branches and number of leaves during the early growth period were about the same, but there were significant differences in the later growth period. The test group grows 1.3 leaves, 0.3~0.6 pieces of fruit branches, 0.4~0.6 flowers, 0.5~1.1 bells, and 0.3 opening bolls more than the blank group.

**Table 1:** Table of Test Results of Soil Improvement on Cotton Fields of Huamao Farm

Survey date	5/26		6/26		7/26		8/26	
Survey item	Test	Blank	Test	Blank	Test	Blank	Test	Blank
Average plant height (cm)	18.7	17.8	39	34.2	56.6	54		
Average Leaves (pieces)	7.6	7.4	12.3	11				
Average Reversed 4 leaves wide (cm)	8.35	8.25	11.6	11				
Average number of fruit branches (pieces)	2.2	2	6.9	6.6	8.2	7.6	8.2	7.6
Average flowers (pieces)			0.6	0.2	6.8	6.3		
Average opening bolls (pieces)					4	3.5	7.5	6.4
Average opening bolls (pieces)							1.3	1

The year 2008 suffered a serious drought. The annual rainfall in Fukang area was 150ml less than it used to be. Judging from the cotton growth conditions in the fields, the cotton of the test group was obviously more drought resistant than the cotton of the controlled group. Under the same growth conditions, the cotton field of the blank group grew slower and had more impact by the drought.

The cotton productivity of the test group showed **an increase of 18.2%** than the cotton productivity of the controlled group, which is an average increase of 44 kilograms of cotton per acre. The result of this proof of concept project sufficiently showed that SOIL-PLUS™ introduced by Eitco in Taiwan has greatly increased cotton productivity.

*Innovation That Grows<sup>SM</sup>*