Cotton Winter Nursery (CWN) 2017-18

Our 3rd season is currently mid-way through completion in the Costa Rica CWN. The number of hills totals 5,977, with 200 of those belonging to a private industry user for the first time at our new location. Five plantings were made in Fall 2017, which is 4-6 weeks earlier than the previous two years in Costa Rica. We met our goal to plant in October and November. This has enabled the cotton to have much improved agronomic growth when compared to previous seasons. Recall that October through May is normally the dry season in NW Costa Rica and the best months for cotton growth and development.

Nested Association Mapping Study Seed Increase

Land drainage improvements made by Alfonso Palafox, CWN site manager, have improved movement of excess water when rains greater than 3-4 inches occur in a single event. Also, for the three years we have been in Costa Rica, winds are stronger and more constant than at the Tecoman, Mexico CWN site. To lessen wind damage, Alfonso planted sugarcane around the borders as a break, but we found out sugarcane attracts field mice which in turn attracts snakes. In recent weeks Alfonso has destroyed the sugarcane and planted a local bush around the fields.

After applying for permits to enable direct import/export of seed some 24 months ago, Alfonso was approved by numerous Costa Rica government entities. This will significantly lessen the time and cost of shipping seed to/from the CWN. Previously we were required to use a Costa Rica seed broker. This was increasingly costly, inefficient, and frustrating. In addition to those permits, Alfonso was approved in early 2018 to purchase chemicals for use in the acid delinting system. You'll recall we built a acid delinting system that had never previously been used for public sector scientists in the previous CWN. Alfonso is now approved to purchase chemicals directly from local distributors rather than having to rely on middle men and their associated high mark-ups.

One of the primary reasons for having a CWN is the grow-out, characterization, and seed increase of photoperiodic germplasm in the USDA National Cotton Germplasm Collection in College Station, Texas. We call this the 'carry-over' nursery. Photoperiodic germplasm makes up >30% of the entire collection. This part of the CWN operation is up and running well.

The establishment and continued operation of the Costa Rica CWN is made possible by the combined contributions from the Southern Association of Agricultural Experiment Station Directors, USDA-ARS, Cotton Incorporated, and user fees. Support from each group is imperative for the operation to continue to serve the public sector cotton community.

Selfing Bags Used on Long Style Flowers in Exotic Germplasm