

Florida Agricultural Success Story – Florida Blue Farms

Getting to Florida Blue Farms near Gainesville, Fla. means a drive through northeastern Alachua County in some beautiful farm and timber country, only a few miles from Lake Alto and Santa Fe Lake. There is a distinct first impression –solid gates, informative signage, neat granite-gravel farm roads and an initial glimpse of the manicured southern highbush blueberries that make up the Florida Blue Farms operation.

Brittany Lee is Florida Blue’s Vice President and General Manager, and an alumna of the Wedgworth Leadership Institute for Agriculture and Natural Resources. In 2008, Brittany and her parents, Dennis and Carrie Lee, converted a timber tract into a 50-acre commercial blueberry farm. After clearing and grading the land, the site offered nearly ideal soils, drainage and other advantages that have helped make Florida Blue successful. With 20 additional acres on the drawing board, the operation will soon consist of 110 acres, with several varieties of highly productive blueberries.

Adding to the difficulties of creating what is now such a buttoned-up operation, were the legacy drainage challenges of a historic timber tract as well as drainage from US Highway 301 and the presence of train tracks adjacent to areas of the farm. The latter two elements were virtually dams, injecting unnatural flows and volumes of water into the equation for Florida Blue Farms, water managers and agricultural engineers to figure out.

Figuring it out was always going to mean doing things the right way, even if that meant extra investment and effort on the front end as it already had in the land preparation. Future plans for the farm included the Florida Department of Agriculture and Consumer Services (FDACS) Specialty Fruit & Nut Crop Operations Best Management Practices (BMPs), as well as BMPs from the Florida Forest Service. These BMPs emphasize water conservation and surface water management to enhance production and improve environmental outcomes on the farm and natural systems in the adjacent geography. Brittany consulted FDACS, the St. Johns River Water Management District (SJRWMD), the Natural Resources Conservation Service (NRCS) of the USDA and consulting engineers to create a hard-working blueberry farm that employs advanced practices to achieve the goals of the indicated BMP programs.

As examples of the BMPs employed, first and foremost is the 4-acre tailwater recovery pond located in the natural “bottom” of the farm. Located at the end of the drainage systems designed into the farm, it serves two purposes: to receive, store and recycle 25 to 70 percent of the groundwater withdrawn during freeze events, with a 50 percent overall long-term reduction goal at build out; and to serve as a treatment site for farm drainage, percolating any nutrients from the water prior to discharges from the property. The investment in the tailwater recovery pond was funded largely out of pocket, with a limited cost-share investment from the SJRWMD. Working together with the tailwater recovery pond are several sedimentation basins and ponds – engineered structures which add to the orderly management and treatment of overland surface-water flows. Florida Blue sends it out better than how they receive it.

In addition to the tailwater recovery system, the entire farm layout takes into account a conservation plan that seeks to provide filtration and avoid erosion. Well-established grassy filter

strips throughout the farm actively and efficiently sponge up already-minimized nutrients and sediments as surface drainage channels its way to the tailwater recovery pond.

There are several prominent investments in drainway stability including rock rip-rap berms that pacify flows during heavy-drainage events and serve as ditch-blocks or dams in order to further enhance filtration and recharge. Additionally, the innovative “EnviroGrid Geocell System®” is a heavy-duty plastic (HDPE) honeycomb installed over ground cloth and filled with granite gravel. These are strategically placed on the farm in areas of high traffic and high erosion potential to minimize adverse water action and to allow natural flows of creeks and waterways to continue. The EnviroGrid® can even be found on interior roads that intersect natural drainways, creating a stabilized and drivable “Florida swale” which accommodates vehicle and implement traffic throughout the farm without adversely affecting natural flows or building expensive and unnatural culvert crossings. Finally, when viewed from an aerial perspective, the farm design can be seen as a quilt of smaller sub-fields that allow better management of water flows throughout the farm.

On the plant nutrition side, highly-efficient fertigation systems apply spoon-fed nutrients directly to the root zone, all driven by intensive monitoring of plant tissue samples and root structure as indicators of plant health and productivity. Combined with an integrated pest management approach to field monitoring, application of crop protection materials is minimized, as are costs.

Given the level of effort, work and science invested in Florida Blue Farms, it might be easy to forget momentarily about its roots in the Lee family. Florida Blue’s passion and culture of conservation are excellent examples of what Florida agriculture is doing to protect Florida’s natural resources and to ensure the continuity of Florida’s powerful agricultural economy for generations to come.