

Suwanee River Water Management District (SRWMD); Success Story – JJ's Beefmasters

One of the defining characteristics of Florida agriculture is the presence, and the importance, of the family operation. Whether large or not-so-large, the nature of a family-owned and family-operated agricultural operation is special – to the family that it emanates from and to the industry and community of which it is a part.

Such is the case with the Live Oak, Fla. based cow-calf operation of Andy and Ramona Jordan, JJ's Beefmasters. This family operation consists of 50-60 acres of pasture and about 30 head of the Beefmaster breed of cattle, not including calves.

A cow-calf operation is a cattle production business characterized by raising and selling livestock for the beef market. A typical cow-calf operation will have a certain “permanent” number of females – heifers and cows – a certain (much smaller) number of bulls, and a goal of producing an annual calf “crop” of steers, heifers and sometimes bulls. JJ's is one of the latter, striving to produce top-quality grass-fed Beefmaster bulls and heifers. The Beefmaster breed excels in the North Florida climate and offers the producer excellent fertility, ease of handling and strong growth characteristics needed for the competitive cow-calf market. The ideal outcome for JJ's is the production of a very high percentage of calves, with the bulls raised for sale to other cow-calf operators as herd sires, and the heifers primarily sold to other cow-calf operations as high-quality “replacements” to invigorate the buyer's herd with the genetic benefits of the Beefmaster breed.

Those not familiar with the cattle business mostly think of the cattle, the cowboys, the horses, the dogs and all of the traditional elements of the business. The pasture is the foundation of any cattle operation, and good pasture and forage (food) management is critical to its ultimate success. It is said that cattlemen are grass growers that also happen to have some cows – a funny little euphemism, but carrying an element of important truth.

Exploring the pasture and forage element further reveals that many Florida cow-calf operators successfully utilize a pasture “monoculture” for their principal warm-season forage. Picture vast open pastures of Bahiagrass throughout Florida's cattle country – the staple of many cow-calf operations. These pastures don't look like that by accident. They are prepared, seeded, cultivated, mowed, fertilized, harvested (for seed and sod) and, most importantly, grazed by Florida's beautiful and abundant cattle herds.

Andy, Ramona and JJ's formula is a little bit different and certainly innovative, focusing on both improved forage outcomes for the cow-calf operation, and reduced impact on the soil, water and environment on and around the operation.

Specifically, this area of North Florida is characterized primarily by very sandy soils with some clay and very little inherent organic components. Such soil conditions lead to difficulties related to maintaining adequate moisture and plant nutrition for successful pasture growth. In addition, rain, particularly heavy rain, can push natural and applied nutrients through the soil profile into the local groundwater flows, with potential adverse impacts on local water quality. In Suwanee County, the Florida Department of Environmental Protection (FDEP) has adopted several nutrient Total Maximum Daily Loads (TMDL's) in the Santa Fe and Suwanee River Basin, with

Basin Management Action Plans (BMAP's) pending for both. Accordingly, there is an additional urgency on the part of area agricultural producers like JJ's to adopt Best Management Practices (BMPs), which ensure the proper management of such nutrients while simultaneously providing for the production needs of their operations.

For its part, JJ's has enrolled in the Florida Department of Agriculture and Consumer Services (FDACS) BMP Program under the Cow-Calf BMP manual and employs a combination of BMPs to manage their operation. As examples of the BMPs employed, JJ's utilizes rotational grazing and cross fencing to match grazing needs to pasture yield. This ensures that pastures are not overgrazed, which can result in erosion, nutrient leaching and poor cattle condition. Rotational grazing also ensures that the distribution of cattle waste is not concentrated. Managed in this way, pasture forage materials remain healthy, with strong roots and tops, providing the ideal balance of cattle nutrition and soil/plant health. Managing rotational grazing requires constant observation, hard work and adjustment for local pasture, weather and nutrient conditions.

JJ's is taking the pasture and forage management aspect of its operation to another level. They are moving away from a monoculture approach to a variable and flexible approach utilizing a multi-species mix of plant material to accomplish an array of improved forage and environmental outcomes.

During a site visit to JJ's, Andy, along with representatives from the University of Florida Institute of Food and Agricultural Sciences and FDACS, talked about the ongoing practice of JJ's to incorporate perennial peanut into their Bahiagrass pastures, something begun by Andy's father, Mr. Joe. This mix has produced improved forage and soil-health outcomes for JJ's. Taking that departure from a monoculture even further, Andy had recently used his FDACS/Suwannee County Conservation District cost-shared Tarver Sales Plant-O-Vator® to overseed a multi-species mix of forage materials which can include sunn hemp, millet, clovers, cow pea, brassicas, vetches and lespedeza, interseeding the then-current mix into existing Pensacola Bahiagrass pastures. The FDACS cost-share programs incentivize and facilitate the introduction of mechanical, technological and agronomic innovation in water-use and water-quality controls for agricultural producers, all of whom are driven by a very high sensitivity to cost management. These cost-share programs, also widely used by Florida's water management districts, have been very successful in delivering low-cost high-yield water conservation, nutrient management, and the accompanying environmental benefits to Florida's taxpayers.

The process of the Plant-O-Vator® is a superior low-till solution to traditional seed drilling and disking/broadcasting methods of planting. Specifically, its coulters and specially designed fertilizer/seed boot provide a precise and cozy home for the magical seed mix described above, minimizing the disturbance of the existing Bahiagrass (versus traditional disking), and ensuring a far superior survival rate of the planted material. But what's so special about this? Well here are a few of the benefits:

1. Beyond the base of Bahiagrass, these additional items provide legumes and other high-protein forage material for the cattle and improve pasture grazing capacity, acknowledging the overarching production need for weight-gain and body conditioning in mothers and calves.

2. The different plant families and varieties have slightly different growth rates, vegetative qualities and recovery characteristics, and support different families of beneficial microbes. This offers diversification within the pasture to allow for changing moisture and weather conditions, ensuring a more consistent source of nutrition and biomass for grazing cattle.
3. Many of the materials in the mix offer the important characteristic of being “nitrogen fixing” or having the ability to symbiotically produce stable nitrogen which remains in place and is available for surrounding plants and grasses. This substantially reduces the need for supplemental fertilizer, often by 50 percent or more.
4. Soil stability and tilth are substantially improved, resulting in its improved ability to retain valuable moisture.

Taken together, these benefits are a jackpot of improved forage, soil condition (tilth and organic content), pasture diversity and resiliency, and environmental outcomes, all within the context of reasonable costs of production. Andy is passionate about implementing these forage innovations and BMPs which have become hallmarks of family farming and ranching in Florida.