

At FDC Enterprises, we believe successful conservation is a result of successful partnerships comprised of landowners, government agencies and private enterprise. Our new "Success Stories from the Field" series is intended to share with others some of the special projects we have been involved in throughout the United States, in hopes of inspiring similar efforts elsewhere.

Since 2002, FDC Enterprises has successfully established over 109,000 acres of native grass across 18 states. Through encouragement from our partners to bring additional necessary services, we have recently expanded our business services to include chemical and mechanical control of exotic/invasive weed and/or woody vegetation species. To learn more about FDC Enterprises, please visit our website at www.fdcenterprises.com

FDC Enterprises Unveils First-Of-Its-Kind Amphibious Native Grass Seeder

Since 2002, FDC Enterprises has been designing, fabricating and upgrading equipment to meet the needs of its conservation partners and the challenges associated with establishing native grasses in a myriad of situations. "Labrador One", an amphibious native grass seeder, is the newest piece of equipment in the FDCE arsenal. The increased emphasis on Wetland Reserve Program (WRP) and Emergency Watershed Protection Program (EWP) establishment and management as well as the extremely wet weather the last 2 years created the need to design a piece of equipment capable of planting native grasses in moist soil with minimal disturbance.

"Our first indication that there was a need for this type of equipment came from customers in South Dakota" said Tom Schwartz biologist for FDC Enterprises. A number of resource agencies and conservation groups involved in EWP projects approached FDCE with a number of flood prone projects that needed to be done by the end of the 2010 planting season. They believed the only way to complete the project within the deadlines set by the program was to plant the projects as quickly as possible after the flood waters receded from the project locations. The seeding window of opportunity will be very narrow and will almost certainly require the grasses to be planted before the land is dry enough for traditional farming equipment.



The amphibious seeder can be used with or without tracks.

FDCE's next indication that there was a broader need for planting into moist soil projects came from North Dakota. After visiting with a number of NRCS offices it became apparent there were a number of recently enrolled WRP and Continuous CRP acres that could only be planted with a piece of equipment that could basically "float" across these extremely wet areas. In response to the growing demands in the Dakotas and across the Midwest to complete native grass planting in moist soil situations, FDCE custom designed and built a number of amphibious machines capable of both applying herbicide and planting native grasses in extremely wet conditions.



Amphibious machine with 40' native grass broadcast seeder.

Kevin Mason, VP of Field Operations for FDCE, was the lead designer in the creation of the seeder. With the help from a number of designers and engineers from companies such as PFM, AgroChem and Rave, Mason was able to integrate the GPS capabilities of the Raven system with the AgroChem designed hydraulics that drive auger systems in the seed tank and booms. This integration allowed us to maintain a consistent and uniform seed flow across the width of the seeder and at a consistently accurate seed rate, even with variations in ground speed.

The 40 foot boom seed delivery system allows for uniform seed placement across the full width of the boom. "One of the biggest challenges with planting native grasses is that they are light and fluffy and so getting them distributed evenly across a planting width can really only be accomplished by using a system that allows the seed to drop straight down, instead of trying to "fling" it out from a center point" said Mason. "Through trial and error we were able to configure the openings in the boom to evenly distribute the seed drop so an equal amount of seed was dropping out of each opening."



Amphibious machine with native grass seeder in transport mode.

The Raven GPS not only monitors and adjusts seed flow, but it also records and maps the acres planted so an accurate accounting of actual acres planted is recorded. The maps and data can then be imported into the Raven GPS units on FDCE's traditional dryland seeding equipment so that FDCE can continue to plant the rest of the project to the exact location that the amphibious seeder ended, ensuring the whole field is planted without skips or overlaps. The maps can also be used at a later date to properly guide the application of herbicide on "amphibious planted" areas.

"Our goal is to help our conservation partners with unique solutions to those specialty needs in establishing superior habitat. With the addition of the amphibious seeders to the FDCE fleet, we hope to further meet those needs of our conservation partners." Said Fred Circle, FDCE President and CEO.

If you have any questions regarding this project, or if you would like to learn more about FDC Enterprises, you can visit our website at www.fdcenterprises.com or call (866)-270-4833.



www.fdcenterprises.com
866-270-4833