

From Scrubland to Farm: Farmland Conversion Consultants Tackles Massive Land Clearing Project

South Carolina company converts 1,900 acres into farmland with the help of CASE excavators, dozers

By John Bauer, brand marketing manager, and Philippe Bisson, brand marketing manager, CASE Construction Equipment

Farmland Conversion Consultants, located in Aiken, S.C., likes big, collaborative projects. That's just what they got when they took on a project converting 1,900-acres of trees and scrubland into a fully functioning vegetable farm.

The company, which is focused on growing agriculture throughout the state of South Carolina, recognized that there is a shortage of open land for farming. Fresh vegetable costs in the region are higher due to the lack of locally grown produce – much of it is imported. Though the soils in the state are particularly attractive to different types of growers, there's an overgrowth of timberland – some of which is well managed, some not.

A project of this size required a significant outlay of equipment. That fleet includes three [2050M dozers](#), two [1650M dozers](#), [three CX470C excavators](#) and [two CX350C excavators](#) from [Hills Machinery](#) and [CASE Construction Equipment](#). Most notable were the hydraulics and leverage provided by the CX470C, and the power and fuel savings of the M Series dozers.

De-Stumping with Excavator Hydraulics

Farmland Conversion hired five logging crews to clear-cut the land. The logging crews also burned the track so Farmland would be able to clearly see stumps and foliage as well as to not incorporate leaf litter into the soil. After the logging companies finished, the company's excavator fleet moved in to de-stump the land.

"All of the merchantable wood on the track was harvested. Then we put the excavators in, and they typically work in line and in conjunction, just going through and stumping all of the stumps that they can find," says Tyler Stone, managing member, Farmland Conversion Consultants. "They'll probably do between 8 to 10 acres a day per machine."

The company started with two 80,000-pound CASE CX350C excavators. They added three 105,000-pound CX470C excavators to work through the heavier stumps – and the five machines work in choreographed efficiency.

"We went up [a size] and our productivity per machine increased," says David Crockett, partner, Farmland Conversion Consultants. "The total job took a spike in production when we put our larger machines where they're of necessity and the smaller machines still support them in that same work area."

One of the most important factors in pulling stumps that have been growing for 20 to 50 years is hydraulic power. Both the CX350C and the CX470C offer the CASE Intelligent Hydraulic System, which blends together four integrated hydraulic control systems throughout lift/dump and dig/curl movements. It uses the machine's hydraulic power and momentum, resulting in excellent speed, power and fuel efficiency.

"These machines are hydraulic-driven, not engine-revved," Crockett says. "That is a very cost-effective concept. It cuts back on fuel consumption and the RPMs, which [affects the] longevity of the engine and the machine itself. The weight of the machinery initially dislodges the stump. Immediately after that, the hydraulics take over so you don't have any engine rev. It's just the compatibility of the weight and the size – it's a perfect combination."

Building Windrows with Dozers

After the excavators made their way through the jobsite, Farmland's dozer fleet pushes all the debris into windrows. The dozer fleet features two CASE 1650M dozers and three CASE 2050M dozers, which are two of the newest additions to the product line. Each machine is outfitted with a rake at the front of its blade that helps separate the woody debris from the soil.

"We compared the rake size with the machine size, and we find it to be totally compatible to the width, blade width and rake width," Crockett says. "And the power of that 2050M has more than given us the ability to increase our push distances."

The M series dozers are the first of their kind to feature a Tier 4 Final engine with SCR (Selective Catalytic Reduction). The machine's hydrostatic transmission delivers the force and drawbar pull required to move more material while achieving up to 10 percent fuel savings. That means a more fuel efficient machine on the jobsite without sacrificing power.

"The difference in [a comparable older model] and a 1650M, we found in the varying uses that we do on a job, could be as little as 1- or 2-gallons an hour or could be as much as 3-gallons, maybe a little more, per hour of that machine's operational time in a day, which is [a] considerable [amount] in a day's time," Crockett says.

A Productive Project

In order to keep track of their fleet on the jobsite, each of Farmland's machines is outfitted with CASE SiteWatch telematics. CASE SiteWatch is a telematics solution designed to gather critical information about a machine's performance and location, and present that data in a way that lets equipment owners make smart decisions in how that equipment works and operates.

“On this particular jobsite, we have 10 machines and one guy running this job. He can’t be at all places at all times,” says Woody Inman, outside sales, Hills Machinery. “I give him a weekly report. It shows if any machines are lacking on productivity. It gives him fuel consumption. They’re ordering fuel upon realizing how much they’re using, so it helps them budget. It’s been a huge benefit for them.”

After this project is completed, the company will move onto two smaller projects that aim to be completed in early 2016.

Then, they’re hoping to take on another large project – developing another 1,500-acres. This first 1,900-acre project as Farmland Conversion Consultants will forever stick out in their minds as an excellent collaboration between dealer and customer, and an excellent matching of equipment to application.

“This project is CASE driven – 100-percent CASE,” Crockett says. “And I’m proud to be a part of it.”

###