

From Soil Prep to Cleaning— Five Steps to Grain Production at Nash's Organic Produce

STEP ONE: Soil prep. Sam is responsible for the maintenance and use of the tractors and heavily tillage implements that are used to prepare various fields for planting grain, cover crops and vegetables. He initially does heavy tillage with an 18 ½' double tandem offset cover crop disc. This tills under all the "green matter" still on the top of the soil and begins the long haul to both fighting weeds and preparing soil to be planted. Sam uses our largest tractor, the New Holland 8970A 230HP, to pull the heavy tillage disc. He then detaches the disc and attaches *two* implements to the New Holland-- an 18' vibrashank and following it, a spike tooth harrow. As he makes 2-5 passes on each field with the dual implements, the vibrashank's spring loaded "C" shaped tines chisel away at soil and break up mud clods. Last in line, the spike tooth harrow feathers and smoothes the soil, beats dirt out of grass clods and brings weeds to the surface of the soil so the sun has a chance to wreak its havoc and kill them! The last soil prep step, when conditions warrant it, is hitting the field for the last time with a Culti-packer, which further levels the soil and kills weeds.

STEP TWO: Planting is done with a grain drill that allows us to control the pounds per acre of seed that are planted, while sowing neat rows 2"-3" deep. The graindrill is pulled behind our second largest tractor, the Case 9020 160HP and has huge hoppers that gravity feed seeds through settings into dozens of pairs of discs that sow uniform rows.

STEP THREE: Irrigation. Spring grain/seed plantings are irrigated up to two times depending on soil conditions. We use a large water cannons for such irrigation, as well as aluminum hand lines with sprinklers. Fall plantings aren't irrigated at all. In the past few weeks for example, Sam has planted 150 acres of cover crop and 5 varieties of winter wheat that will not be irrigated.

STEP FOUR: Harvesting happens during the hottest, driest days of late summer or early fall. Our John Deer 6600 Combine is put to work cutting, thrashing and sorting the grain in the field, and feeds it into waiting bins on big trucks that shuttle inventory back to our barn to be cleaned. The combine can harvest and hold about 3 tons in a 1/2 hour's work on a good day. To truly appreciate its capabilities is to see it in action as creeps across the field eating up golden rods of grain and spitting out straw in one direction and a torrent of seed in another. Sam has spent a great deal of time working with our two combines and their myriad of settings and adjustment capabilities are like second nature to him.

STEP FIVE: Cleaning and storage occurs at the Delta Barn as well. Through a contraption that boasts a series of screens, blowers and shakers with various adjustable settings we sort out weed seed and chaff from the final product. The grain is then ready to sell, to be replanted or suitable for longer-term storage. To prevent sprouting or molding spoilage during storage the moisture content of the grains should be between 11-14%, and the weather during harvest season greatly affects this variable.