

Vegetation Management Section

Equipment

Vegetation Establishment

Chisel Plow



The chisel plow typically has "C" shaped shanks, mounted on dual coil springs. The frame, shanks and springs are of sufficient weight, size, and strength to provide an eight to twelve inch cutting depth. The chisel plow is used to break up hard pans and compacted areas. Disk Harrow - A tandem disk harrow or an offset disk harrow of sufficient weight and size to provide a six to eight inch cutting depth is normally used.

Cultipacker



The cultipacker consists of heavy-duty smooth spoke or crowfoot rollers to provide clod breaking and smoothing capabilities. It is used by NCDOT to ensure good seed-to-soil contact.

Broadcast Spreader - The broadcast spreader consists of a unit with a hopper for holding seed, fertilizer, pelletized limestone, or other granular products, and a mechanism which will spread the product uniformly over a swath approximately three to four times the width of the equipment.

Drop Spreader - The drop spreader consists of a spreader hopper (approximately eight foot in width), with a spreader plate and ground driven wheels. The drop spreader delivers a uniform application of material by literally dropping material such as limestone or fertilizer onto the soil.

Seed Drill - The seed drill can be used for seeding various species of grasses and grains. It generally has a minimum width of 10 feet and contains a seed hopper capable of seeding an eight foot width, with row spacing approximately seven and a half inches. The unit also contains discs equipped with springs to aid in loosening the soil. Also, the seed drill usually contains a fertilizer box capable of distributing fertilizer while seeding.

Hydroseeder



The hydroseeder combines water, seed, fertilizer, and sometimes hydromulch into a slurry. The mixture is then pumped through a nozzle and sprayed uniformly over the area to be seeded. Typical hydroseeders

can distribute this slurry up to 150 feet or more, depending on the size of the pump. This allows for seeding on terrain which may not be accessible by other broadcasting or drill seeding methods.

Straw Blower



The straw blower or mulch blower is used to distribute mulch over a previously seeded area. It consists of a slide or chute for inputting the mulch, chopper blades for chopping and breaking up the mulch, and a blower to spread the mulch up to 50 feet depending upon the size of the equipment.

Tack Applicator - The tack applicator consists of an emulsified asphalt distributor capable of keeping the asphalt particles suspended in water, either by heat or a combination of heat and agitation. It also has a pump and spraying system which provides a uniform spray over straw or hay mulch to hold it in place until the vegetation is established.

Crimper - The crimper usually consists of a straight disk harrow which "cuts" the straw into the soil, leaving the straw partially exposed to protect the seedbed from the elements. This alternate method of holding straw in place is effective in loose, sandy soil but may require higher rates of straw.

Tree Spade - The tree spade is a hydraulically operated spade used for digging, relocating and planting trees up to six inches in diameter. The unit is typically truck-mounted and can support a tree and ball weight of approximately 4500 pounds.

Tiller - The tiller is used to pulverize soil and incorporate soil amendments. This unit is PTO driven and usually has blades capable of tilling to a depth of approximately four to six inches.

Mulch Blower - The mulch blower, usually truck-mounted, is used to spread bulk materials such as bark, limestone, compost, or other materials. Typical units can uniformly distribute products up to 150 feet.

Wildflower Seeder - The wildflower seeder is basically the same as a seed drill except that a specialized seed box (sometimes referred to as a native grass seed box) is required. This specialized seed box is made for handling small or fluffy seed like that of many wildflowers and native grasses.

Sod Roller - The sod roller is used to firm sod after it has been put on an appropriate seedbed. This rolling is necessary to ensure that proper contact between the soil and the sod roots has been accomplished. The roller is usually filled with water for additional weight to achieve this contact and to avoid bridging (or air pockets) that would cause the roots to dry.