

John Deere 1500 Powr-Till™ Seeder



OPERATORS MANUAL John Deere 1500 Powr-Till™ Seeder

OMN159431 K6 English

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LITHO IN U.S.A.
ENGLISH





To the Purchaser

The new 1500 Powr-Till Seeder was carefully designed and manufactured to give years of dependable service. To keep it running efficiently, read the instructions in this operator's manual. Each section is clearly identified so you can easily find the information you need—whether it is operation, lubrication, or assembly. Read the Table of Contents to learn where each is located.

Should your seeder require replacement parts, go to your John Deere dealer where you can obtain genuine John Deere Parts—accept no substitutes. Genuine John Deere Parts fit properly and insure satisfactory service because they are made from the original patterns and from the same or better materials as used in new machines.

Record your seeder serial number in the space provided on page 41. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments.

“Right-hand” and “left-hand” sides are determined by facing the direction the seeder will travel when in use.

The warranty on this seeder appears on your copy of the purchase order which you should have received from your dealer when you purchased the seeder.



This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

Because John Deere sells its products worldwide, U.S. units of measure are shown with their respective Metric equivalents throughout this operator's manual. These equivalents are the SI (International System) Units of Measure.





Contents

	Page
SAFETY SUGGESTIONS	2
IDENTIFICATION VIEWS	3
OPERATION	4-25
General Information	4-6
Introduction	4
Description	4-5
Field Preparation, Seeding, and After Seeding	5-6
Preparing Powr-Till Seeder	7-8
Preparing Tractor	9-10
Controls	11
Attaching Seeder to Tractor	12
Detaching Seeder from Tractor	12-13
Acremeter	13-14
Importance of Checking Quantities Planted	15
How to Check Quantities Planted	16
Seeding Rates	16-19
Transporting	20
Field Operation	20
Field Adjustments	21-24
Cutter Wheels	21
Planting Depth	21
Roller Chains	22-23
Down Pressure Springs	23
Slip Clutch	24
Storage	25
ATTACHMENTS	26
LUBRICATION	27-28
SERVICE	29
TROUBLE SHOOTING	30-32
ASSEMBLY	33-40
SPECIFICATIONS	41



Safety Suggestions

The safety of the operator was one of the prime considerations in the minds of John Deere engineers when the 1500 Powr-Till Seeder was designed. Simple adjustments and safety features were built into the seeder wherever possible.

You can make your farm a safer place to live and work by observing the following suggestions. Study these suggestions carefully and insist that they be followed by those working for you and with you.

Never ride, or permit others to ride on the drawbar of the tractor or on the seeder.

Never allow anyone other than yourself on the tractor when operating or transporting the seeder.

Never stand behind the seeder when the cutter wheels are turning, in or out of the ground.

Lower the stands all the way when performing maintenance on the seeder while it is still connected to the tractor.

Reduce speed when transporting over uneven or rough terrain.

Shift the tractor into a lower gear when transporting down hills or steep slopes.

If your tractor is equipped with a Roll-Gard Safety Canopy and seat belt, be sure to keep your seat belt fastened when operating or transporting the seeder.

When transporting the seeder on a road or highway at night or during the day, use accessory lights and devices for adequate warning to operators of other vehicles. In this regard, check local governmental regulations. Various safety lights and devices are available from your John Deere dealer.

There are several references in this manual to the use of diesel fuel as a cleaning agent. Be careful when cleaning with this fuel so that it does not ignite. Use only in a well-ventilated area and away from any sparks or flames.

Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and that lines, pipes, and hoses are not damaged.

Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks.

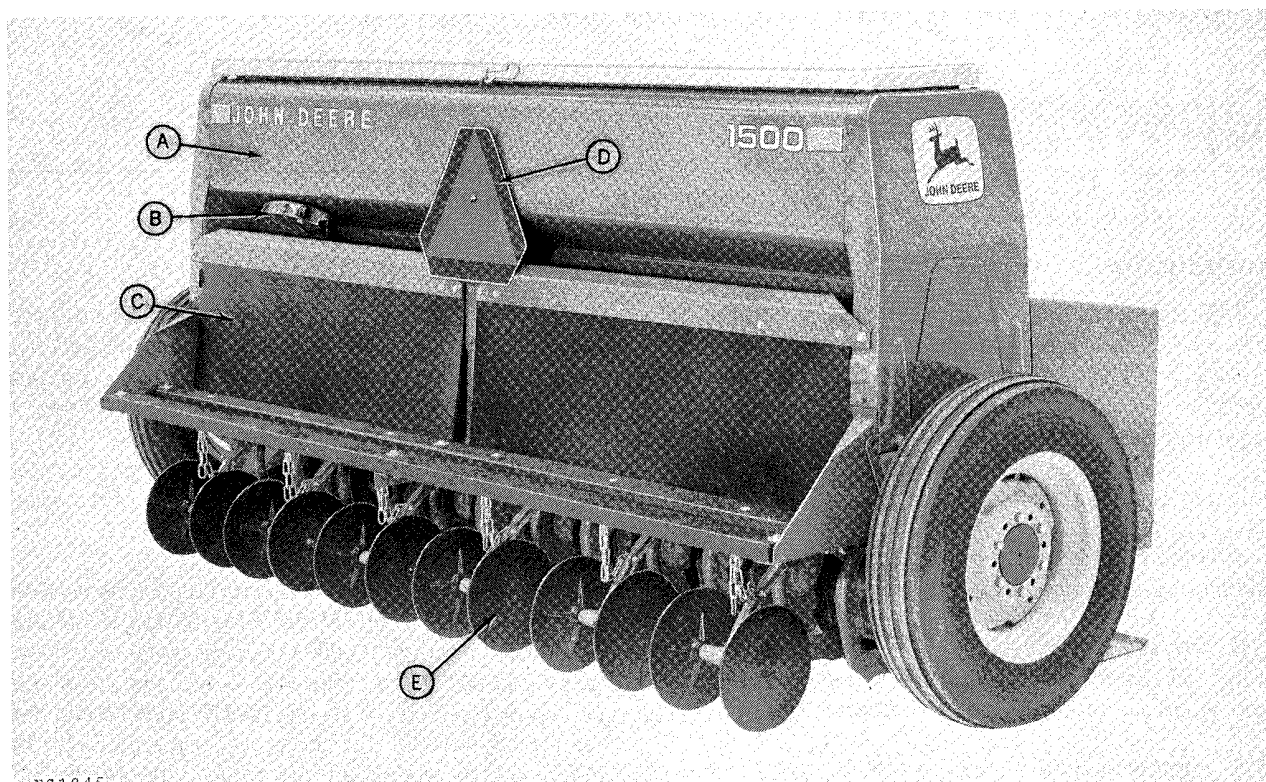
If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

If spray can paint is used, be careful when discarding empty can. Do not incinerate or puncture can.

Finally, remember this: An accident is usually caused by someone's carelessness, neglect, or oversight.

**A Careful Operator
IS THE BEST INSURANCE
AGAINST AN ACCIDENT**

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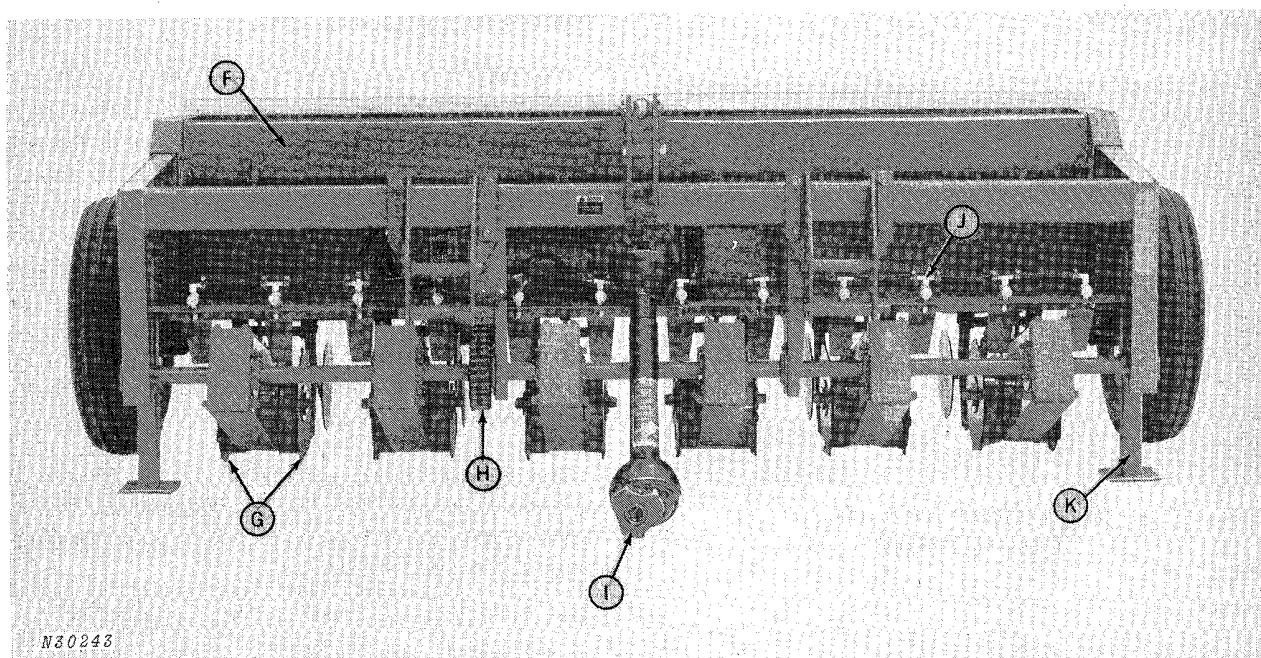


A—Grain Box
B—Shifter

C—Rubber Flaps
D—SMV Emblem

E—Packer Wheels

Grain Model



F—Grass Box
G—Cutter Wheels

H—Dual Drive Chain
I—Powershaft

J—Sprayer Attachment Nozzle
K—Stand

Grass Model



Operation

GENERAL INFORMATION

Introduction

The Powr-Till Seeder can effectively operate in land that is hilly and subject to erosion; areas that are rocky, full of stumps, tree roots or other obstacles; or land where moisture lost by conventional tillage would be detrimental.

It can be used for:

1. Interseeding legumes, such as alfalfa, clover, or Birdsfoot Trefoil, into existing grass.
2. Interseeding cool season grasses, such as rye grass into Bermuda grass for the winter grazing season when Bermuda grass is dormant.
3. Improving pure stands of alfalfa.
4. Reclaiming fill areas from strip mining.
5. Interseeding small grains into grass for added grazing potential.



*Contact Herbicide Results One
Week After Spraying*

Description

Two models of the 1500 Powr-Till Seeder are available; a grass model and a grain model. The grass model has a 2-1/2 bushel (88 l) seed box and requires a 540 rpm PTO. The grain model holds 10 bushels (352 l) and requires a 1000 rpm PTO. A grass seed attachment can be added to the grain model to make a combination grain and grass seeder.

The seeder uses power-driven cutter wheels to till an area 1/2 to 3/4-inch (13 to 19 mm) wide, a seedbed wide enough for most seeds. Because of various seed types and sizes, the cutter wheel depth is adjustable, usually 3/4-1-inch (19-25 mm) deep yields satisfactory results for most of the seeds to be planted with the machine. The wheels are driven from the tractor PTO and cut through hard ground or sod to mulch the soil. The cutter wheels are mounted in units of two wheels each. Each unit pivots about the line shaft and floats vertically. An adjustable down pressure spring is mounted on each unit.

The PTO drive is a Powr-Gard drive which fully protects the drive line from the tractor to the implement gear case. Power is transmitted from the gear case by a double roller chain to a hex. line shaft. A double-disk slip clutch is located on the gear case output shaft to protect the gear case and the units. Each cutter wheel unit is driven by a fully enclosed, lubricated roller chain.

The seed metering system is ground driven, and uses accurate and dependable fluted force feeds that have been field-proven.

The seeding rate is controlled by a single lever on both the grain and grass models. Seeds drop through convoluted rubber tubes to steel seed boots for placement in the seed furrow.

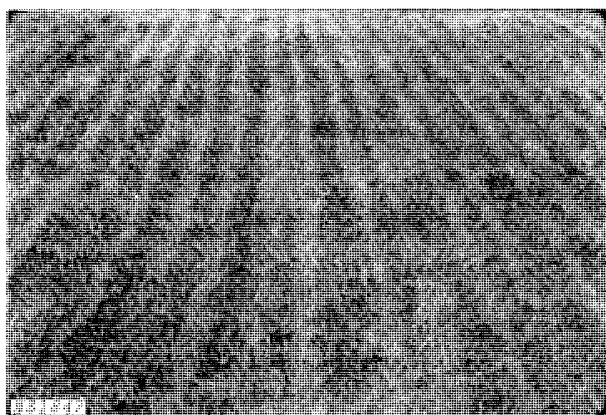
Soil is firmed over the seed by a 10-inch (254 mm) diameter firming wheel. The minimum tillage allows the improvement of pastures or hay fields with minimal loss of production.

One important key to the success of this seeding system, in many situations, is the use of contact herbicides. These herbicides suppress the growth of the existing crop and/or weeds until the new seedlings emerge and become established.

⚠ CAUTION: Read carefully the directions printed on the chemical manufacturer's labels before handling chemicals. Wash spray material off immediately with strong soap and water if it comes in contact with your skin.

The John Deere 210 or 220 Sprayer is available as an integral part of this system. The 210 Sprayer has two-100 gallon (378 l) tanks and the 220 Sprayer has two-200 gallon (757 l) tanks; both tanks are polyethylene. The 210 Sprayer mounts on 2020 through 4630 Tractors and the 220 Sprayer mounts on 4020 through 6030 Tractors. Both sprayers use a hydraulically driven centrifugal solution pump.

The sprayer adapting attachment for the 1500 Powr-Till Seeder is required to use the sprayers. The spray nozzles mount on the front of the seeder frame for accurate coverage and minimal drift. The spray is applied in a four-inch (102 mm) spray band from each nozzle.



Evenness of Spray

Field Preparation

The seeder is only an integral part of good, sound land management; it cannot, by itself, cure all problems of all pastures.

Depending on soil tests, add lime or fertilizer first.

The seeder is designed to work in pastures that have been grazed or clipped before seeding. One reason is to minimize competition from weeds and other grasses. A second reason is to prevent long grasses from wrapping around the cutter wheels.

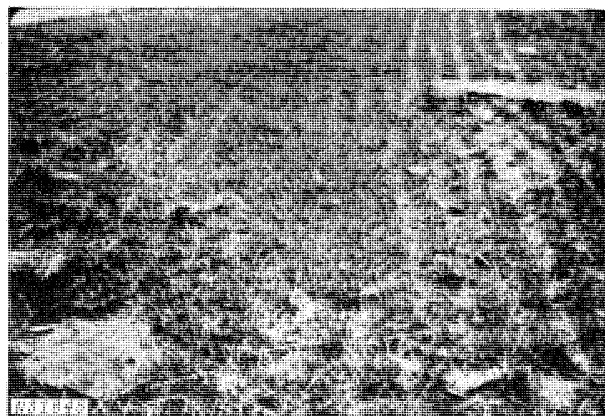
IMPORTANT: Operate the seeder in pastures where existing growth is less than three to four inches (76 to 102 mm) tall. If grass buildup does occur around the cutter wheels, remove it (done easiest by removing the wheels) before continuing to work or damage will occur to the seeder and/or the tractor.

Pick up any barbed wire or twine that might be lying in the path of the seeder to prevent a loss of time unwrapping it from the cutter wheels.

The Powr-Till Seeder works well in damp areas, but marshy or swampy places should be avoided to prevent plugging seed tubes and wasting seed.

Apply a herbicide to kill broadleaf weeds a week to ten days before you plan to seed pasture.

Fertilizer can be applied before seeding. It is also effective if applied a few weeks after the new seedlings are established. This is especially true when herbicides have been applied to suppress existing foliage.



Rocky Pasture After Interseeding

Seeding

Many crops, including small grains, can be successfully interseeded with various grasses. Choose a high-quality seed, and inoculate all legume seeds before seeding.

Seed legumes to improve good grass stands, since a single legume species is easier to manage in a grass-legume mixture. If a mixture is desired, a small amount of red clover in birdsfoot trefoil or crownvetch will enhance early yields. Trefoil and crownvetch are easier to establish in bluegrass and orchardgrass than in brome grass. Alfalfa and red clover are easier to establish in tall grasses.

Follow recommendations of your local agriculture extension service for desirable varieties, interseeding rates, and the best time to seed in your area.

If a sprayer is used, choose a relatively calm day to work to prevent unwanted drift, loss of chemical, and ineffective suppression of existing growth.

For maximum effectiveness of herbicide, do not work in the rain and, after the rain is over, wait another half day before starting to work again.

The 1500 Powr-Till Seeder will accomplish the proper seed-to-soil contact WHEN OPERATED AS INSTRUCTED IN THIS MANUAL. The two following points must be emphasized however:

1. Routine maintenance and twice-a-day lubrication are essential for efficient, trouble-free operation.
2. Cutter wheels wear faster in abrasive rocky soils; therefore, they MUST BE replaced more often to achieve the best yields from the particular field.



*Clover In-Furrow Seven to Ten Days
After Seeding*

After Seeding

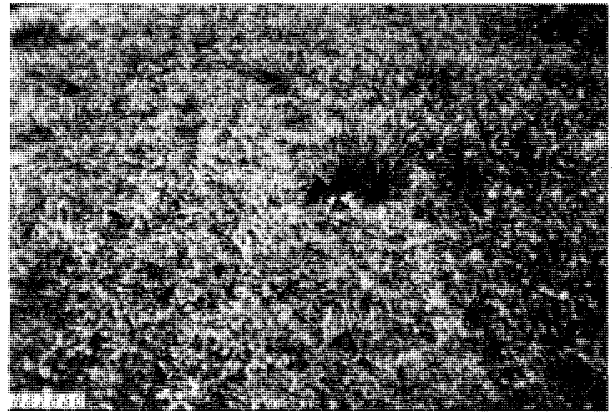
After the new seeding appears, observe its progress and adopt grazing and fertilizing practices to aid in its establishment.

Where a legume was interseeded into grass, unless a herbicide was used, continue to graze the field until the legume seedlings are tall enough to be bitten off. Then discontinue grazing to allow the legumes to grow to a height of two and one-half to three inches before grazing again.

If a grass field cannot be grazed after interseeding, due to using herbicides, it is especially important to keep the grass mowed until the legume seedlings are two and one-half to three inches tall. Legume seedlings need plenty of sunshine during establishment and are easily shaded out if grass growth is not controlled. Follow manufacturer's recommendations regarding a safe waiting period before grazing.

Grass-legume mixtures can be used for grass or hay, but they should have a "rest" period of a month to six weeks during the seeding year to store needed food in their root system.

After the seeding year, use rotational grazing to allow the new seeding to become well established. Allow about three inches of forage to stand during the winter. Avoid close grazing, and fertilize annually according to soil test results.



Clover Three to Four Weeks After Seeding

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