

# 431 AND 631 COTTON AND CORN PLANTERS



JOHN DEERE

## OPERATORS MANUAL 431 AND 631 COTTON AND CORN PLANTERS

OMB25539 L0 English

**OMB25539 L0**

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ENGLISH





## To the Purchaser


This new planter 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 adjustments and service. Read the Table of Contents to learn where each section is located. Use the alphabetical index for fast reference.

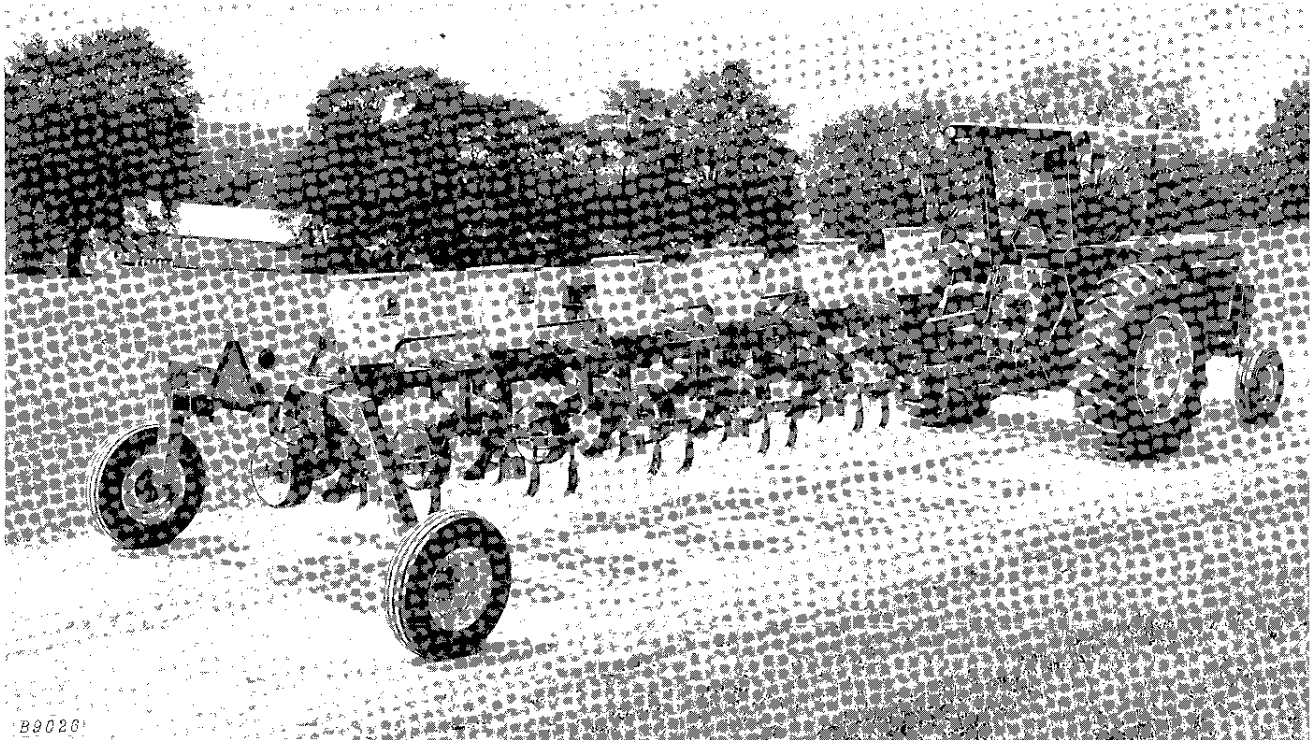
In addition to the equipment furnished with your planter, attachments are available to help you do a better job in special crop conditions. These are described in the special equipment section of this manual and can be purchased from your John Deere dealer.

"Right-hand" and "left-hand" sides are determined by facing in the direction the planter will travel when in use.

Record your planter serial numbers in the space provided on page 33. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments. If your planter requires replacement parts, go to your John Deere dealer where you can obtain genuine John Deere parts - accept no substitute.

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

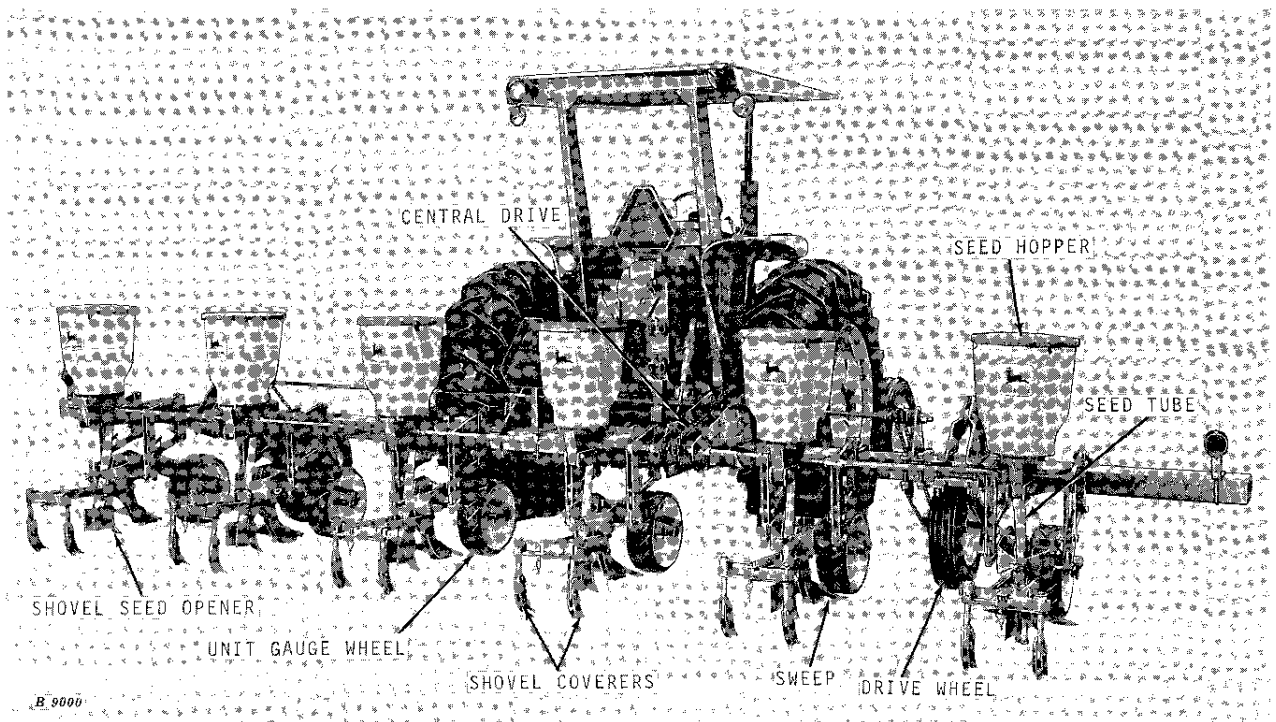
 This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.



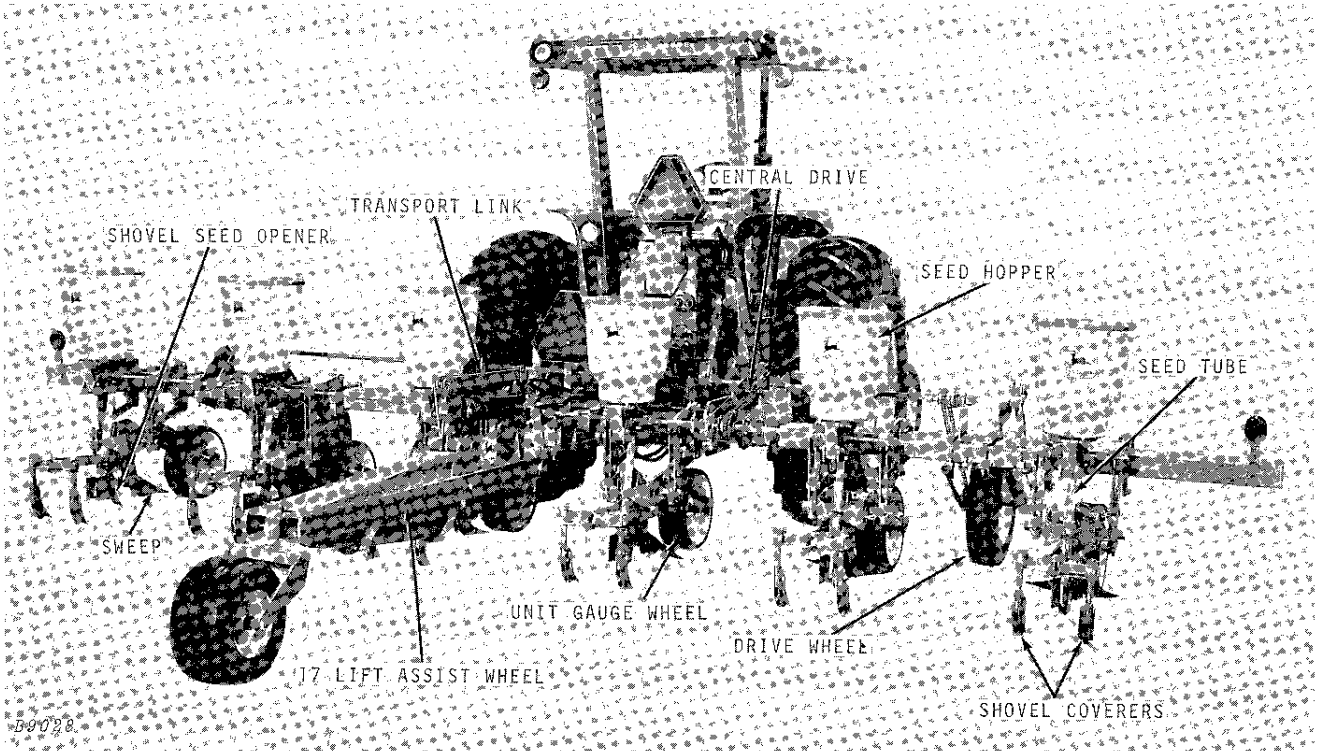


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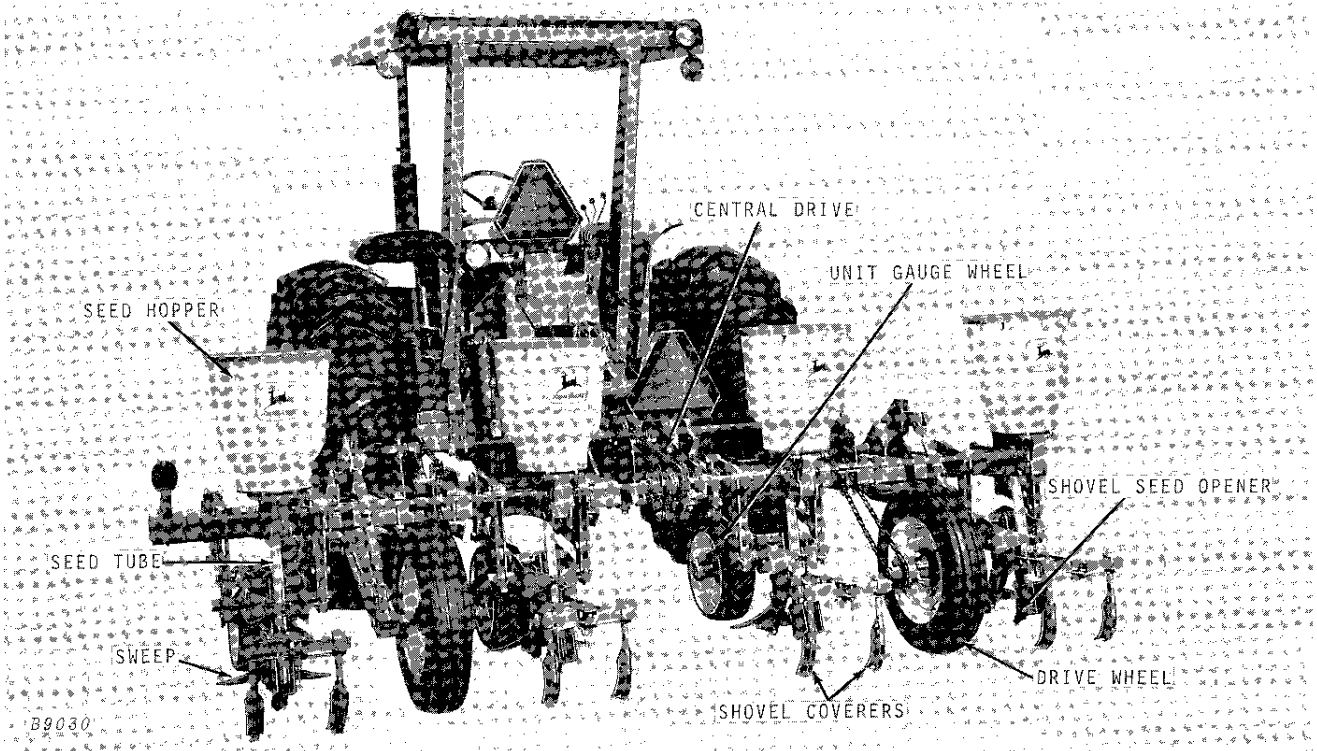
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John Deere 631 Cotton and Corn Planter



*John Deere 631 Cotton and Corn Planter with 17 Lift Assist Wheel*



*John Deere 431 Cotton and Corn Planter*



# Operation

## PREPARING THE TRACTOR

### All Tractors

For complete operating instructions concerning the tractor, refer to the tractor operator's manual.

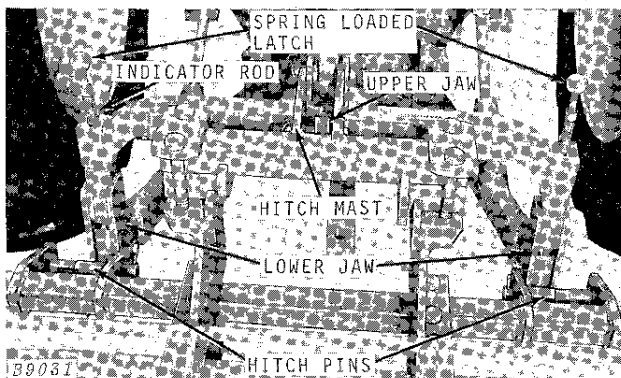
### Rear Wheel Tread

Set tractor wheel tread (center to center of tires) as nearly as possible twice the distance of the row width. For example: For 40-inch row widths, set the tractor wheel tread at 80 inches.

### Tire Pressure

Consult your tractor operator's manual for front and rear tire pressure.

### Attaching Planter to Tractor With Quik-Coupler



Place spring loaded latch rods in the "up" position before attaching to planter.

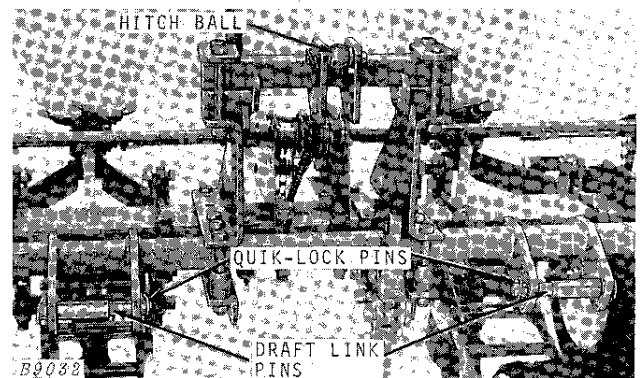
Lower 3-point hitch so upper jaw will pass under spacer between planter hitch mast plates and lower jaws will slip under planter hitch pins.

Back the tractor until the three jaws are under their respective hitch points and raise hitch. Release spring loaded latch rods to lock the lower jaws.

*NOTE: When spring-loaded latches are properly locked, the indicator rod will protrude through the slot in the coupler frame adjacent to the latch rods.*

**CAUTION:** To prevent accidental disconnecting of planter, install latch lock pins in lower jaws of Quik-Coupler after the planter is attached. Refer to your tractor operator's manual for instructions on installing latch lock pins in jaws of Quik-Coupler.

### Attaching Planter To Tractor without Quik-Coupler



*NOTE: When attaching to tractor without Quik-Coupler, optional bundle BK40926 (draft link pins and hitch ball), must be used.*

Back tractor until draft links almost line up with ends of hitch pins.

Turn leveling screw if necessary to line up draft links with hitch pins. Lift lock pins and extend telescoping draft link shafts to make connection easier. Attach left-hand draft link first. Insert hitch pin through lower hitch plates and draft link and secure with quik-lock pin. Attach right-hand link in same manner.

Release center link and attach to hitch mast. Lengthen or shorten center link for easier attaching. To replace lock pins in draft links, raise planter and allow planter weight to telescope draft links to operating position.

## 4 Operation

### All Tractors—Continued

#### Detaching Planter

To detach planter from tractor with Quik-Coupler, lower planter on a level surface, push down on spring-loaded latches and lock them in the released position. Lower the 3-point hitch.

To detach planter from tractor without Quik-Coupler, lower planter on level surface. Remove center link, then draft links.

#### Row Spacing

Row spacings from 36- to 40-inch rows are available for the 431 or 631 Planter.

Set the tractor wheel tread (center to center of tires) twice the desired row spacing.

#### Adjusting Speed of Rockshaft Drop

Set the speed of the rockshaft drop on tractor on which the rockshaft and implement drop can be regulated.

Adjust the throttle valve to give a smooth, slow drop of the planter.

#### Front End Weighting

Add the necessary front end weights for efficient operation and safety. See tractor operator's manual.

**2510, 2520, 3010, 3020, 4000, 4010, 4020, 4320, 4520, 4620, 5010 and 5020 Series Tractors**

**Belt Pulley**

The belt pulley must be removed from the tractor if the tractor is so equipped.

**Sway Blocks**

Sway blocks must be attached to eliminate all side sway except for contour planting.

**Setting the Rockshaft Selector Lever**

Set the selector lever in "D" position.

**Rockshaft Control Lever**

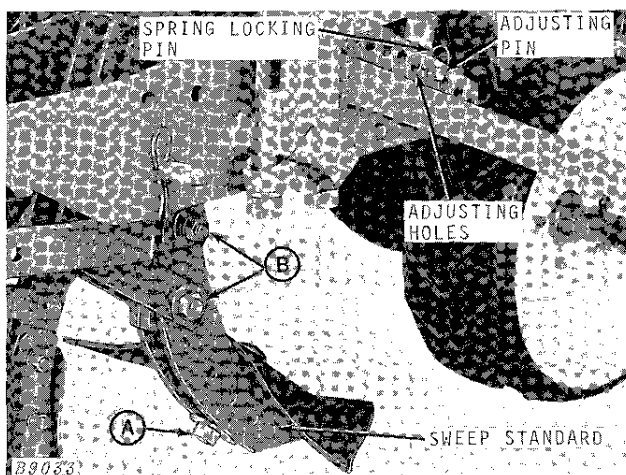
Use the rockshaft control lever to raise or lower the planter.

**Lift Links**

Adjust the lift links for transport clearance and lateral float. See tractor operator's manual.

**PREPARING THE PLANTER**

**Depth of Sweep**



The operating depth of the sweep is controlled by the position of the gauge wheel and the position and angle of the sweep and sweep standard.

To change the position of the gauge wheel, raise the planter off the ground, and pull the spring locking pin from the adjusting pin. Move the adjusting pin to the hole which will give the desired depth of the sweep, and replace the spring locking pin. Moving the adjusting pin up and back in the holes will let the sweep cut deeper.

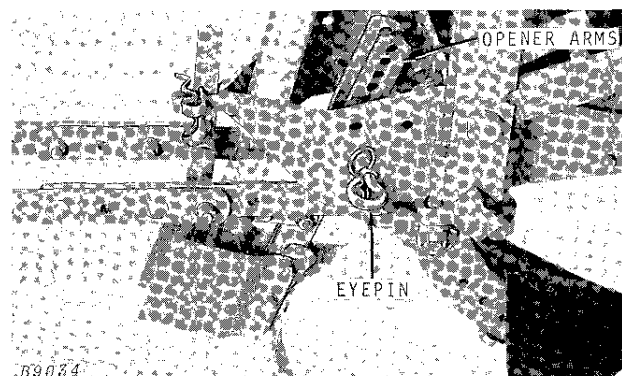
To change the angle of the sweep on the standard, loosen bolt "A" and slide the sweep up or down to obtain the desired angle. Tighten bolt "A."

To change the angle of the sweep standard, loosen bolts "B" and move the standard to obtain the desired angle. Tighten bolts "B."

It is generally preferred to run the sweep with the point tilted down slightly.

**Depth of Planting**

The depth of planting is controlled by the position of the eye pin in the opener arms.



To increase or decrease the planting depth, pull the spring locking pin from the eyepin, pull the eyepin out and lower or raise the opener arms to obtain the desired planting depth. Install the eyepin and the spring locking pin.

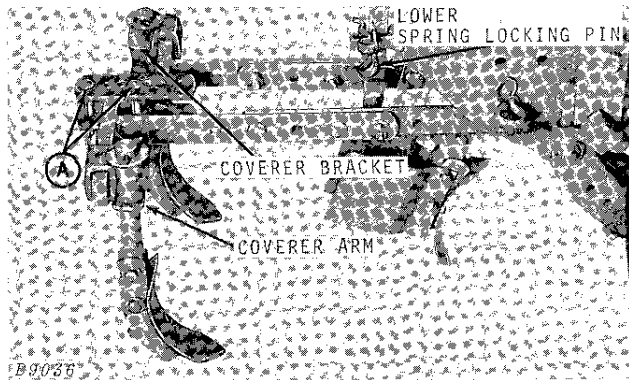
**Adjusting Toolbar Height**

Adjust drive-gauge wheels by loosening or tightening turnbuckle until toolbar height is midway between unit parallel arm upper and lower limit.

**PREPARING THE PLANTER—Continued**

**Depth of Coverers**

The depth and distance apart at which the coverers work can be quickly changed.



The depth at which the coverers operate is determined by the position of the lower spring locking pin in the depth strap. Lowering the lower pin in the depth strap decreases the working depth of the coverers, and raising the lower pin increases the depth. If the planter is operated in soft ground conditions, it may be necessary to use the upper spring locking pin to gauge the depth of the coverers and keep them from going too deep.

To change the distance between the coverers, remove the pins "A" and slide the coverers in or out to the desired position. Install the pins in the nearest hole in the coverer arms.

Also, the position of either or both of the coverer brackets can be reversed.

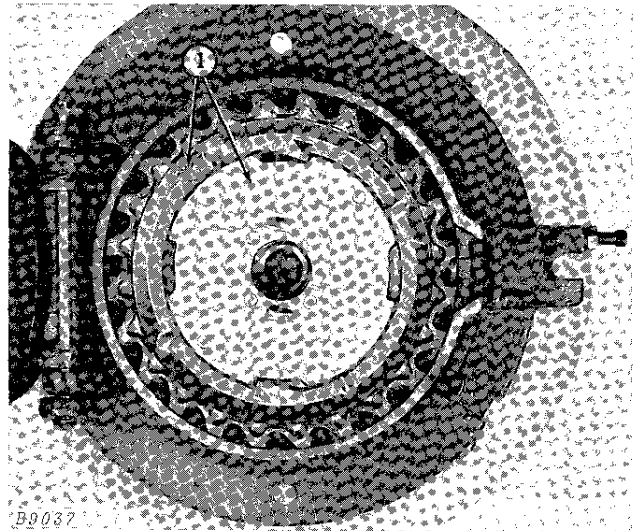
**Leveling the Planter**

Adjust the 3-point hitch both laterally and vertically. The toolbar must be parallel to the ground and the seed hoppers perpendicular to the ground, when in operating position.

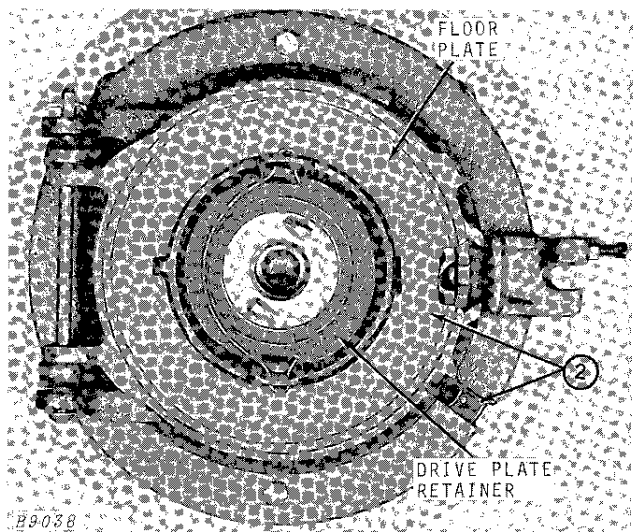
**Raising and Lowering the Planter**

The planting unit is raised or lowered with the rear mounted toolbar by the tractor hydraulic system.

**PLANTING ACID DELINTED COTTON SEED, CORN, AND ALL OTHER SEED EXCEPT LINT COTTON SEED**



1. Install recommended seed plate and drive plate.



2. Close recommended floor plate and hold in place with floor plate hinge.

*NOTE: Drive plate and/or floor plate may have to be turned over as recommended.*

*False ring may be used as recommended.*



## SELECTING SEED PLATES

The selection of the seed plates is one of the most important steps in preparing the planter for the field.

There is a large variety of John Deere seed plates available in various cell sizes and number of cells.

Growing conditions change from year to year, and the size of the seed will also vary. Therefore, it is quite likely that different seed plates are required to plant the same variety of seed from year to year.

There are two ways to select seed plates. One is to follow the recommendation of the seed supplier and the other is to take a sample of the seed to be planted

to a John Deere dealer and let him recommend the seed plates.

In either case the accuracy of the seed plate selected should be checked when installed in your planter and operated at the planting speed you intend to travel. The best check is to plant a short distance, at the desired planting speed, and then stop and dig up the hills of seed to determine the actual planting rate.

The following is a list of the most popular seed plates.

### PLATES FOR FLAT KERNELS OF CORN

12-Cell	16-Cell	24-Cell	Kind of Corn
.....	H697B	B30070	Extra Small Corn
H966B	H694B	H1302B	Small Corn
.....	H1572B	H2711B	Small Slender Corn
H948B	H695B	H950B	Medium Corn
.....	H2156B	H2594B	Long Thick Corn
.....	H696B	H2836B	Large Corn
.....	H2504B	H2848B	Medium Flat Slurry Treated Corn
.....	H2503B	H2847B	Large Flat Slurry Treated Corn
.....	B12498	.....	Extra Large Flat Slurry Treated Corn

### PLATES FOR ROUND KERNELS OF CORN

12-Cell	16-Cell	24-Cell	Kind of Corn
.....	H2295B	.....	Extra Small Round Corn
.....	H2043B	H2824B	Small Round Corn
H2560B	H1933B	B10853	Medium Round Corn
.....	H2044B	H2712B	Large Round Corn
.....	H2820B	.....	Extra Large Round Corn

### PLATES FOR EDIBLE BEANS

16-Cell	20-Cell	24-Cell	30-Cell
H1324B	H1300B	H1301B	H2480B
H1071B	H954B	H983B	.....
H956B	H1315B	.....	.....
.....	H1258B	.....	.....
.....	H1254B	.....	.....
.....	H1255B	.....	.....
.....	H1084B	.....	.....

### PLATES FOR SOYBEANS

40-Cell	20-Cell
H2441B	H1255B
.....	H2527B (Use with H1279B
.....	Floor Plate)
.....	.....
.....	.....
.....	.....
.....	.....

**NOTE:** A stepped false ring (B27054) is available for providing additional hole depth when planting the above sizes of seed.

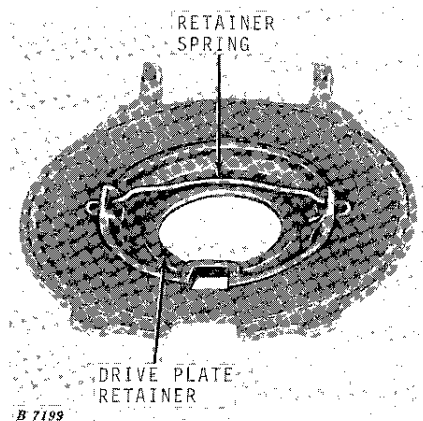
## 8 Operation

### SELECTING SEED PLATES—Continued

The following is a partial list of seed plates which require a special false ring or floor plate, or the regular floor plate turned over:

Seed Plate No.	No. of Cells	Kind of Seed
uB 27436	12	Large pumpkin seed
uH 779B	16	Popcorn
uH 780B	16	Medium country gentleman sweet corn
uH 961B	16	Spanish corn and small popcorn
uH 963B	16	Large country gentleman sweet corn
uH 964B	16	Small sweet corn, small sunflower seed
uH 1238B	16	Medium shoe peg corn
uH 1239B	16	Medium sweet corn, large sunflower seed
uH 1240B	16	Extra small country gentleman tapered sweet corn
kH 1262B	16	Cantaloupes and cucumbers
oH 1263B	16	Beet seed (thin plate)
oH 1316B	16	Extra small round corn
sH 1322B	16	Extra, extra small corn
sH 1345B	16	Small round corn
sH 1352B	16	Extra small narrow corn
nH 1353B	16	Tomato seed (machined plate)
uH 2505B	16	Popcorn
uH 2671B	16	Popcorn
uH 2709B	16	Popcorn
nB 27768	16	Maize and grain sorghum
uH 781B	20	Popcorn
pH 2527B	20	Soybeans - heavy planting
sH 2672B	24	Maize and grain sorghum
uB 27783	24	Maize and grain sorghum
nH 1256B	25	Onion seed (machined)
nB 27769	32	Maize and grain sorghum
zB 30456	32	Cucumber
zB 30457	32	Cucumber
uN 2469	54	Maize and grain sorghum
uH 776B	..	Blank plate 5/32" thick (holes can be drilled up to 1/4")
kH 1211B	..	Blank plate 5/32" thick (cells can be filled in edge)
nH 1259B	..	Blank plate 5/32" thick (machined)
k	Use with Y3313B False Ring	
n	Use with AH306B Floor Plate and Y5055B False Ring	
o	Use with H1264B Floor Plate	
p	Use with H1279B Floor Plate	
s	Use with H1323B Floor Plate	
u	Use with Y2630B False Ring or H1346B Floor Plate	
z	Use with B30458 Floor Plate	

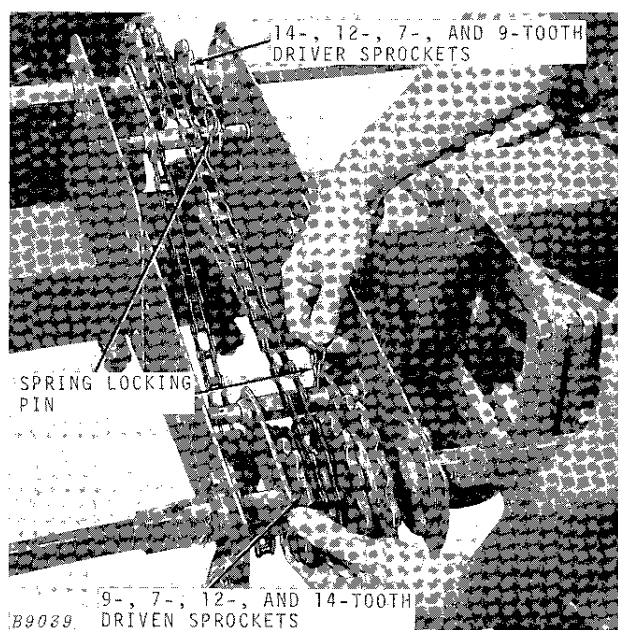
### Drive Plate Retainer and Retainer Spring



Use drive plate retainer (B30410) and retainer spring (B31562) as shown when using AH306B, H1264B, H1279B, H1280B, H1323B, H1346B, and H1354B floor plate.

## DRILL PLANTING

### Sprocket Combinations



To achieve any given sprocket combination, remove spring locking pin and slide the desired sprockets into alignment with one another. Replace spring locking pin.

The sprocket combinations in the DRILLING DISTANCE chart provide different drilling distances between seeds.

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