

# C-21 SERIES FIELD CULTIVATOR



JOHN DEERE

## OPERATORS MANUAL C-21 SERIES FIELD CULTIVATOR

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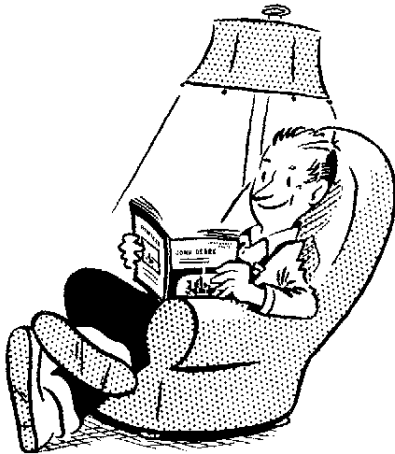


## TO THE PURCHASER

This operator's manual contains valuable information regarding assembly, operation, and field adjustments.

Your new field cultivator will do quality work in direct proportion to the care you use in operating it. Operate, adjust and service the field cultivator according to the instructions in this manual.

If you need information not covered in this manual, see your John Deere dealer. He has the latest information on how to get the best service from your field cultivator and can give you prompt service in the field or in his shop.

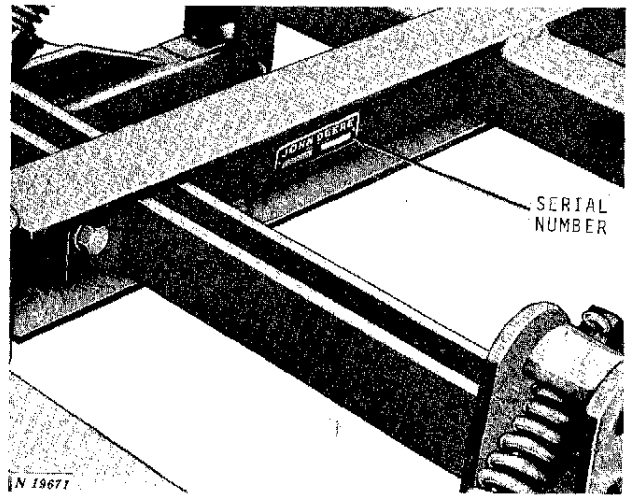


Study this manual carefully and keep it handy in a safe place for future reference. Additional copies of this manual can be obtained from your John Deere dealer upon request.

Right- and left-hand reference is determined by standing at the rear of the cultivator and facing the direction of travel.

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

When in need of parts, go to your John Deere dealer who carries genuine John Deere parts for your C-21 Field Cultivator. Be sure to give him the model number as well as the serial number of your machine and the year purchased. This information should be recorded in the space provided below as soon as you have received your new field cultivator.



The serial number is located on the inside of the center I-beam on the center frame as shown above.

Model Number. . . . .

Serial Number. . . . .

Year Purchased. . . . .

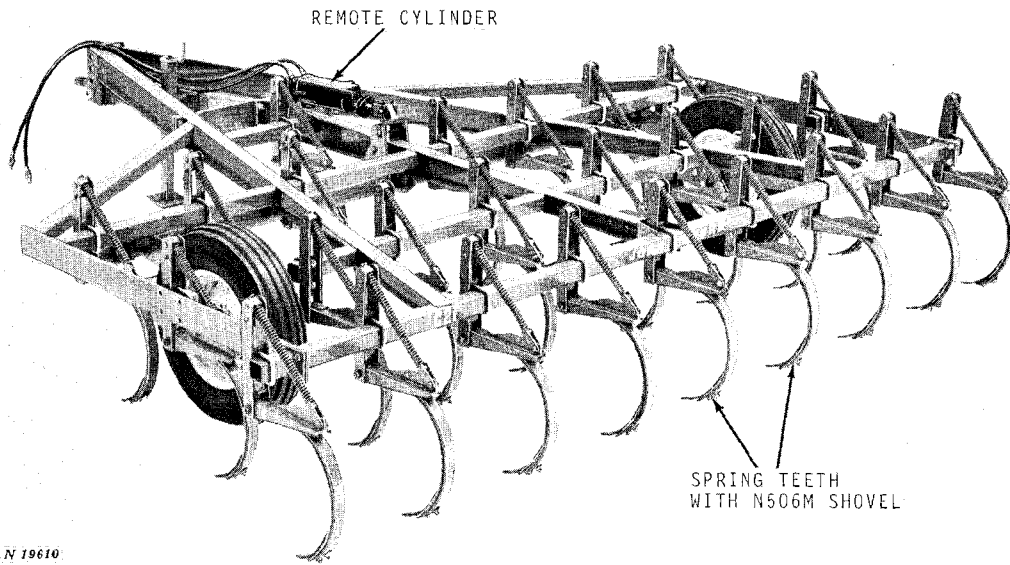
*(To be filled in by Purchaser)*



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.

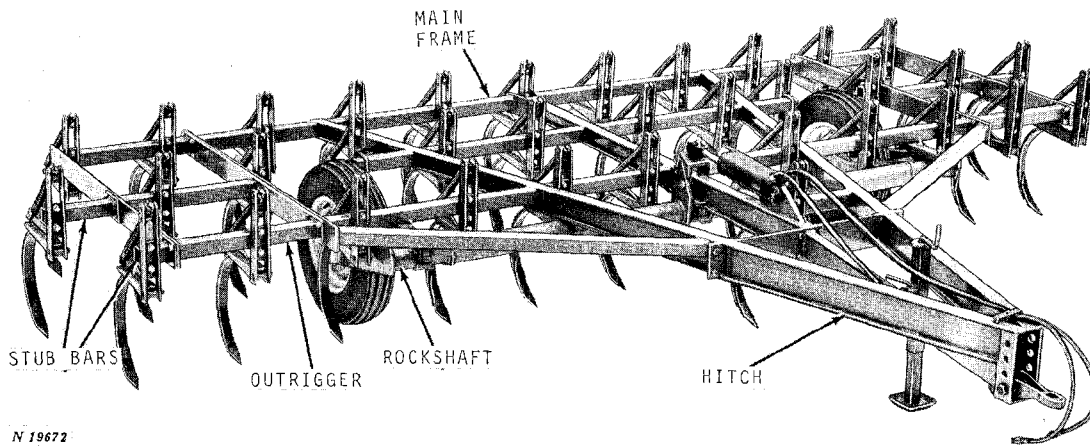
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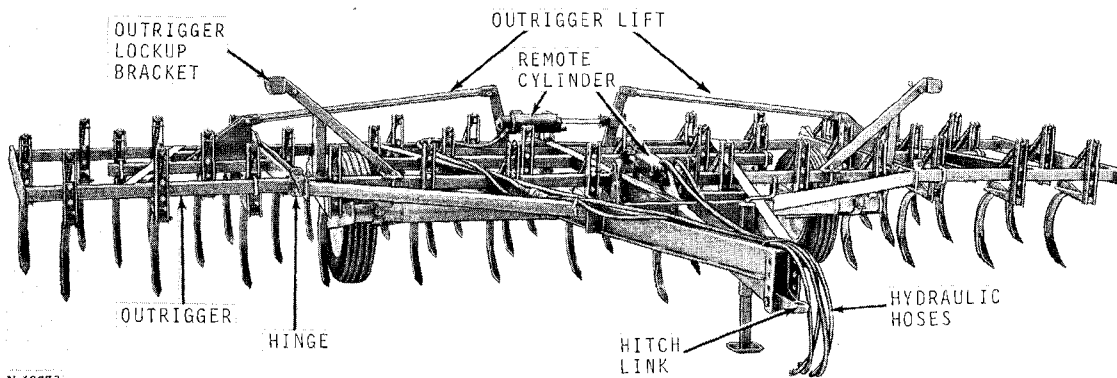
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*John Deere Model 2125 C-21 Rigid Field Cultivator - 6-Inch Spacing*



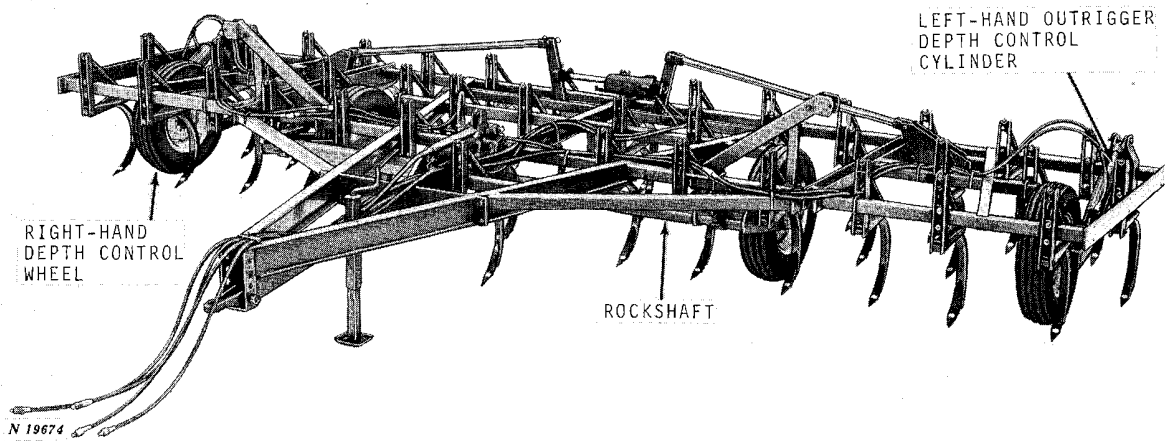
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*John Deere Model 2155 C-21 Rigid Field Cultivator with Stub Bars - 6-Inch Spacing*

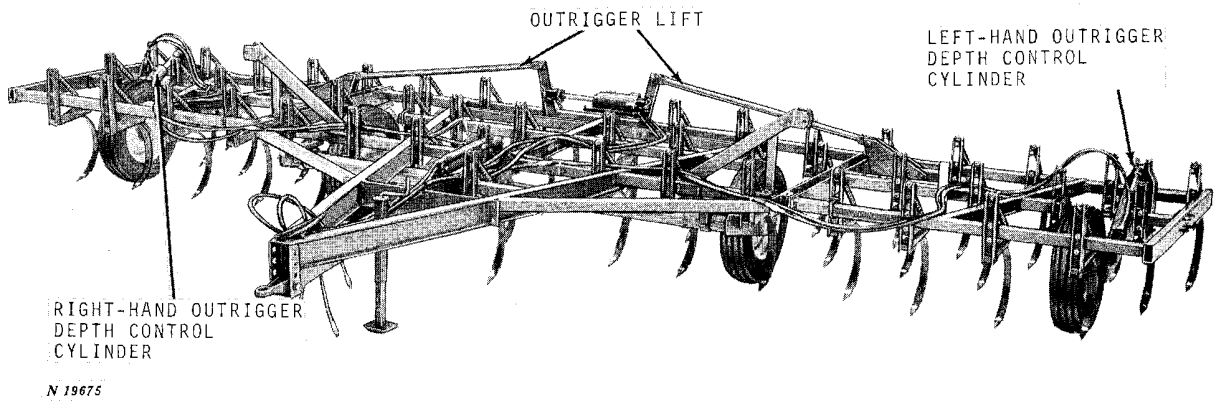


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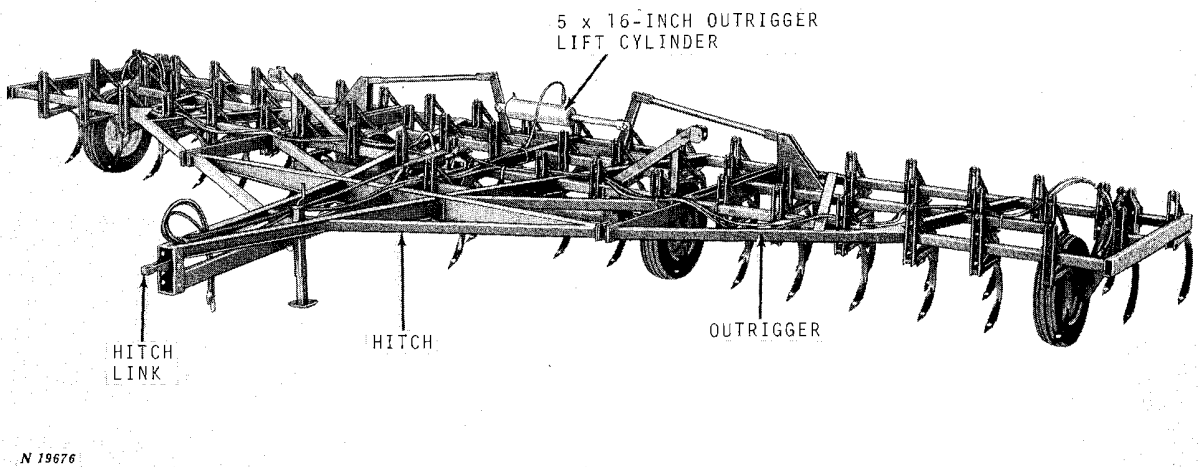
*John Deere Model 2204 C-21 Rigid Field Cultivator - 6-Inch Spacing*



John Deere Model 2205 C-21 Flexible Field Cultivator - 6-Inch Spacing



John Deere Model 2245 C-21 Flexible Field Cultivator - 6-Inch Spacing



John Deere Model 2305 C-21 Flexible Field Cultivator - 6-Inch Spacing

## SPECIFICATIONS

### MODELS

#### C-21 Series Rigid Field Cultivators

Model 2125 - 12-1/2-Foot Field Cultivator  
 Model 2155 - 15-1/2-Foot Field Cultivator  
 Model 2204 - 20-1/2-Foot Field Cultivator

#### C-21 Series Flexible Field Cultivators

Model 2205 - 20-1/2-Foot Field Cultivator  
 Model 2245 - 24-1/2-Foot Field Cultivator  
 Model 2305 - 30-1/2-Foot Field Cultivator

### HYDRAULIC CYLINDER REQUIREMENTS

#### Model 2125, 2155, and 2204 Cultivators

One 8-inch stroke remote hydraulic cylinder required for controlling depth of penetration of spring teeth. One 3 x 8-inch stroke remote hydraulic cylinder is required for the outrigger lift on the Model 2204 Cultivator.

#### Model 2205, 2245, and 2305 Cultivators

For tractors with a high pressure (approximately 2000 psi) hydraulic system, these cultivators are regularly equipped with three hydraulic depth control cylinders. A 3-1/4 x 8-inch cylinder is used on the right-hand outrigger, a 3 x 8-inch cylinder is used on the left-hand outrigger, and a 3-1/2 x 8-inch cylinder with depth control stop is used on the center rockshaft. The 3-1/2 x 8-inch cylinder with depth stop, raises, lowers, and controls depth of all spring teeth. One 3 x 8-inch stroke remote hydraulic cylinder is required for the outrigger lift on Model 2205. One 3-1/2 x 8-inch stroke remote hydraulic cylinder is required for the outrigger lift on the Model 2245 Cultivator. One 5 x 16 cylinder is provided for the Model 2305 Cultivator outrigger lift.

*NOTE: Tractors must be equipped with dual remote cylinder outlets to operate the hydraulic outrigger lift.*

For tractors with a low pressure (approximately 1000 psi) hydraulic system, see your John Deere dealer for hydraulic cylinder requirements.

### FRAME AND HITCH

One basic welded center frame of tubular steel and I-beam construction is used for all models of the C-21 Field Cultivator. A common hitch is used for the Model 2125, 2155, 2204, 2205, and 2245 Field Cultivators. A heavy-duty hitch is used for the Model 2305 Field Cultivator.

### WHEELS

15-inch disk wheels with heavy-duty anti-friction wheel bearings.

### WEIGHT

Model 2125 - 1665 Lbs.    Model 2205 - 3058 Lbs.  
 Model 2155 - 1887 Lbs.    Model 2245 - 3218 Lbs.  
 Model 2204 - 2521 Lbs.    Model 2305 - 4222 Lbs.

### TRANSPORT AND STORAGE WIDTH

Model 2125 - 12 feet, 3 inches  
 Model 2155 - 15 feet, 4 inches  
 Model 2204 - 16 feet, 4 inches (Outriggers raised)  
 Model 2205 - 18 feet, 6 inches (Outriggers raised)  
 Model 2245 - 18 feet, 6 inches (Outriggers raised)  
 Model 2305 - 18 feet, 6 inches (Outriggers raised)

### TRANSPORT AND STORAGE LENGTH

Model 2125, 2155, 2204, 2205, and 2245 - 13 feet, 4 inches.  
 Model 2305 - 15 feet, 10 inches.

### POWER REQUIREMENTS

Model 2125 - 2510, 3020 Tractors  
 Model 2155 - 2510, 3020, 4020 Tractors  
 Model 2204 - 3020, 4020 Tractors  
 Model 2205 - 3020, 4020, 5020 Tractors  
 Model 2245 - 4020, 5020 Tractors  
 Model 2305 - 5020 Tractor

**IMPORTANT: A tractor having more than 100 drawbar horsepower should not be used with the Model 2204 Field Cultivator.**

### SHOVELS AND ATTACHMENTS

See pages 5, 6, 7, 8, and 15 for various shovels and attachments that are available.

*(Specifications and design subject to change without notice.)*

## OPERATION

### WEED CONTROL AND CULTIVATION

Weed control is a necessary and important part of farming. Profit stealing weeds rob farmers of millions of dollars every year. It is estimated that the productiveness of the average farm is reduced 25 percent annually because of weeds.

Weeds are a constant menace. It doesn't pay to fight them in a half-hearted way. Fighting weeds successfully calls for the most effective implements and methods. For this reason, the farmer should study his field problems carefully before deciding the size and type of cultivator equipment best suited for his needs. Cutting the weeds into pieces and burying them as often happens when the wrong equipment is used, is simply encouraging new growth of weeds.

If any weed on your farm cannot be identified, send to your agricultural college for a weed bulletin, or better, send a sample of the weed—stem, flower, and root, when possible, and find out what it is. Remember, weeds will spread and the patches get bigger every year. It is much easier to kill a small patch than a big one.

Weeds of all kinds, regardless of name, are in two distinct classifications. They are designated as "shallow-rooted" or "deep-rooted weeds."

Different weeds require different methods of eradication. Shallow-rooted weeds, such as Quack grass, Johnson grass, Bermuda grass, and the like, must be ripped out by the roots and brought to the surface. Deep-rooted weeds such as Canada thistles, Russian thistles, bindweed or Creeping Jennie, Hoary Alyssum and the like can only be destroyed by cutting off the stalks below the surface.

You can get good results in weed eradication with the John Deere C-21 Field Cultivator. At the same time you are killing weeds, you are also stirring and mixing the soil and making a fine, deep seedbed. There are styles of shovel equipment suited for every job.

### PROPER TIME FOR WEED ERADICATION

The proper time to make war on weeds depends a great deal on field and weather conditions. It is conceded by the majority of farmers and agricultural experts that weed eradication can be brought about successfully in the spring-time before planting, also in the fall after the harvest.

#### In Spring or Before Planting

If weed control is practiced in the springtime or before planting, the following simple instructions should be followed:

1. Don't attempt to work more acreage than you can handle thoroughly during this period. Work the field both ways at intervals until planting time.

2. Don't remove the roots from the field unless they are so thick that they interfere with good work. Remember that the decayed roots will form humus and add valuable fertility to the soil. Be sure that the roots are exposed to the air long enough so that they die.

3. Following above treatment, plant a row crop, that can be cultivated, or a smother crop.

4. After harvesting this crop, work the field at least three times—lengthwise, crosswise, and diagonally before the freeze-up. Leave the roots on top through the winter.

#### In Fall or After Harvest

If weed control is practiced in the fall or after the harvest, the following simple instructions will serve as a guide.

1. Don't attempt to work more acreage than you can handle thoroughly during this period. Work the field at least three times—lengthwise, crosswise, and diagonally, before the freeze-up.

2. Do not plow roots under—leave them on the surface to dry and freeze as the decayed roots will form humus and add fertility to the soil.

3. The following spring, work the field both ways at intervals until planting time.

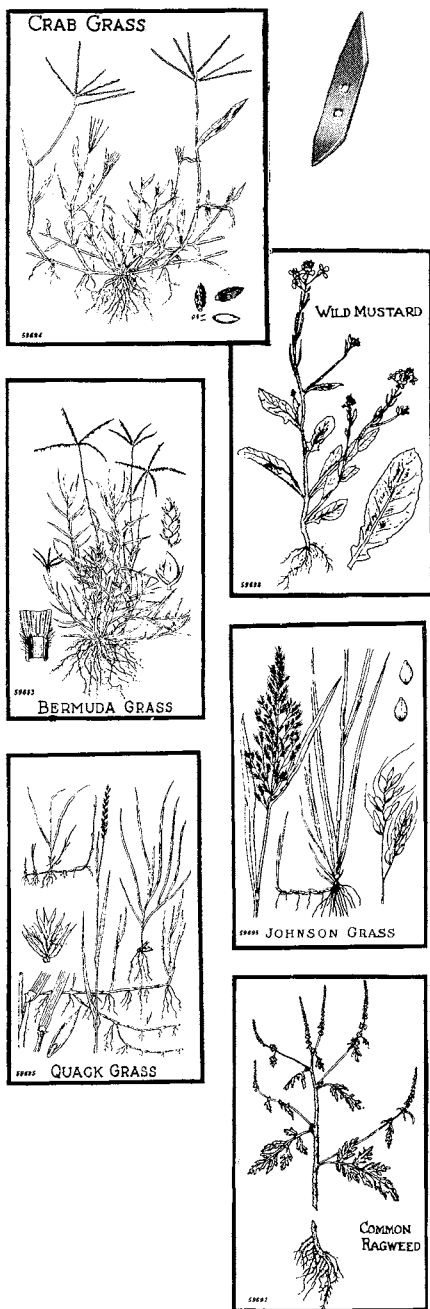
WEED CONTROL AND CULTIVATION—Continued

DESTROYING SHALLOW-ROOTED WEEDS

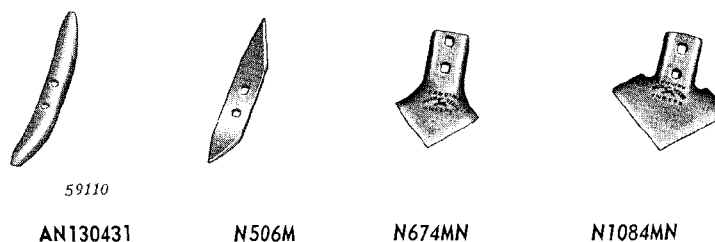
Equip cultivator with narrow shovels to up-root shallow-rooted weeds.

Weeds illustrated here and weeds of a similar character must be ripped and dug out. Use spring teeth spaced 6 inches apart with double-pointed reversible 1-3/4-inch width shovels (N506M). The vibrant motion of the spring teeth separates the roots from the soil and brings them to the top. The weeds should be left exposed on the surface long enough to kill the roots and then used as a fertilizer. In some localities, it is necessary to rake the weeds and burn them.

Do not set the shovels too deep the first time over, especially if the ground is hard, as it might result in lumpy work. Here are simple rules to follow when using spring-tooth equipment. Set the shovels at a depth of about 2 inches the first time over. Then cross-cultivate the second time over with the teeth set to penetrate a maximum depth. If the field is thickly infested with roots, the ground should be gone over a third time, driving the cultivator diagonally across the field. This work can be done either in the spring or fall, depending upon conditions.







Narrow Shovels

### RENOVATING PASTURE LANDS AND ALFALFA FIELDS

Spring teeth with the special 1-1/2-inch width double-pointed shovels AN130431 are recommended for alfalfa cultivation. The double-pointed reversible shovel (N506M) can also be used.

Depth of cultivation depends on the age of the crop, the variety of alfalfa, and the condition of the soil. Branch root varieties should not be cultivated deeper than 3 inches when the crop is young—established stands may be cultivated as deep as 4 inches. Taproot varieties can be cultivated to a depth of 6 inches. When the soil is hard, the first and second cultivations should always be shallow in order to breakup the clods, and to prevent the plants being pulled up with the clod. In looser soils, first and second cultivations may be deeper except in wet soils where the alfalfa is of the branch root variety. In all conditions, it is the best practice to cultivate shallow the first two times, following with deeper cultivations to a depth best suited for your crop and soil conditions. Cultivating can be done either in the spring or fall, depending on conditions.

### ROUGHING STUBBLE LAND AND LIGHT SOIL TO PREVENT BLOWING AND DRIFTING

Spring teeth with 6- or 9-inch spacing are used extensively for this class of work.

In extremely hard ground conditions the double-pointed reversible shovel (N506M) should be used for the first cultivation.

### MAKING SEEDBEDS AND GENERAL TILLAGE

Spring teeth with the double-pointed reversible 1-3/4-inch width shovels (N506M) are recommended for this class of work. 4-1/2-inch shovels (N674MN) or 10-inch shovels (N850MN) are also used under certain field conditions. Seedbeds can be made to a depth of about 8 inches.

### SUMMER-FALLOWING

Either 6- or 9-inch spaced spring teeth with wide overlapping shovels, can be used for summer-fallowing.

The depth of penetration required depends upon the conditions of the soil.

It is important to keep shovels sharp.

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