

# Silviculture simi

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will accumulate on crop trees), sanitation cuttings (of diseased or insect infested stems), and prunings (lower limbs only).

Two types of thinning and weeding practices are generally recognized: (1) commercial - where cut stems are sold to recover some costs; and (2) pre-commercial - where there is no market for trees removed. An understanding of "silvics" determines which stems to leave in the stand.

For instance, a black cherry growing beneath a larger cherry probably should be cut and sold for a small sawlog. Its chances of maturing decrease the longer it is in competition with overtopping trees.

Another example is trying to favor development of paper birch in a stand with a large component of sugar maple. Unless adequate light reaches the paper birch, it quickly dies from suppression by the sugar maple.

As with forest stand classifications, cutting methods can be grouped as either even-age or uneven-age. These terms refer to the four general types of forest that will develop after cutting. Even-age harvest systems are clearcutting, seed-tree cutting, and shelterwood cutting. The one uneven-age system is selection cutting.

Many second growth forests found in Pennsylvania today can be classed as even-age stands. They developed after the turning of the century. Much of the state was clearcut then because of heavy demand for lumber, bark, and wood chemicals. Many harvested stands contained large hemlock trees. After hemlocks were cut, intolerant trees were quick to establish themselves. Valuable even-aged stands of northern hardwoods and oaks resulted from these early "ravages" of Pennsylvania woodlands.

Today, clearcutting and the other two even-age harvesting systems are used to produce stands of intolerant species. Clearcutting removes all stems 2 inches or larger so intolerants can establish themselves in cutover areas.

Before clearcutting, a forester considers factors such as sources of natural seed, advanced regeneration, and the impact of wildlife populations on regeneration.

If a seed source is sparse, either a shelterwood or seed-

tree harvesting system might be considered. The seed-tree system removes all but a few high quality seed-producing trees. Seed trees are removed when adequate seed is available. Unless seed trees have windfirm roots, trees are likely to blow down before enough seed is produced.

A shelterwood system is used to establish stands of trees that may not aggressively compete with faster growing species. Two cuts are usually made. One cut opens the stand to prepare seedbeds and to stimulate seed production in the residual trees. Once the desired species is established, the second cut removes the overstory.

Many people prefer to harvest their woodlands by the selection system. Only individual or small groups of mature stems are removed. New seedlings spring up in openings created by the harvest. Repeated selection cutting produces an uneven-aged stand. Insect and disease-damaged trees, as well as some smaller trees, are cut for the same reasons as for intermediate cuttings.

The selection system is suitable for tolerant species because they will grow in shade. Weeding and thinning are also done during the harvest operation. If this were not done, a stand would quickly lose its potential to supply a continuous flow of good timber.

To know that trees require moisture, sunlight, space, and nutrients is not enough for efficient and successful timber production or wildlife management. Each species has individual requirements which must be satisfied to realize its full potential in terms of growth and vigor. Just because a tree happens to be growing on a certain site does not mean that the site is best suited for that tree. Other species may be better suited for the site.

Silviculture determines requirements of tree species and should be used to match tree species with the best possible growing conditions. Timber production or wildlife management which does not use silvicultural knowledge likely will be slow and wasteful at best and may fail entirely.

### Grapefruit

The juiciest grapefruit are firm, shiny, well-shaped and heavy for their size. Avoid a grapefruit that is pointed at the stem end or has rough or wrinkled skin.

### Safflower Oil

Safflower oil is pressed from the seeds of a plant that is grown on the West Coast and some Pacific Islands. Refined safflower oil is bland in flavor and almost colorless. It may be used as a salad or cooking oil. Production is limited and thus it is more expensive than other vegetable oils.

### Info Helps

A wealth of information about nutritional qualities of foods is now found on can and package labels for food products. Used properly, this data will help you evaluate and improve your diet.

### Aches and Pains

Approximately 50 million Americans suffer from some form of arthritis.

### WHAT'S NEW



### POWER RING DRIVE FOR SILO UNLOADERS

An independent power ring drive for new or existing Volumatic II silage distributor-unloaders is announced by the Jamesway Division of Butler Manufacturing Company, Fort Atkinson, Wis.

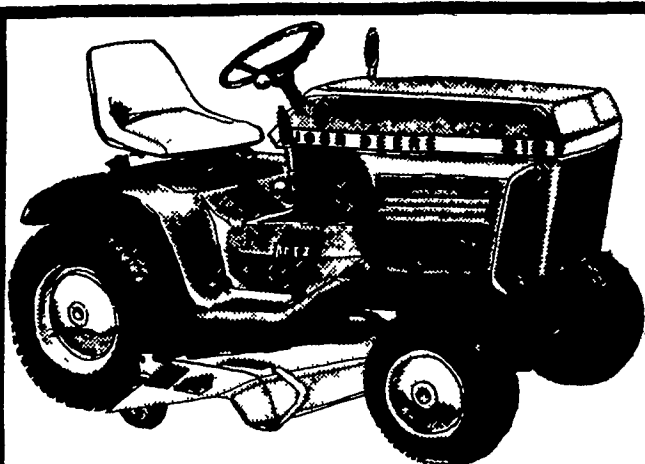
The optional drive unit for rotating the machine in the silo conserves energy and reduces silage distribution power costs during filling.

A one-half horsepower motor coupled directly to a 500-to-one gear reducer running in oil turns the drive sprocket. Teeth on the sprocket mesh with holes in the stationary drive ring to turn the machine for distributing silage or for unloading silage.

The cast iron gear casing holds seven pints of oil. A drive sprocket slip clutch in the hub center is easily adjusted.

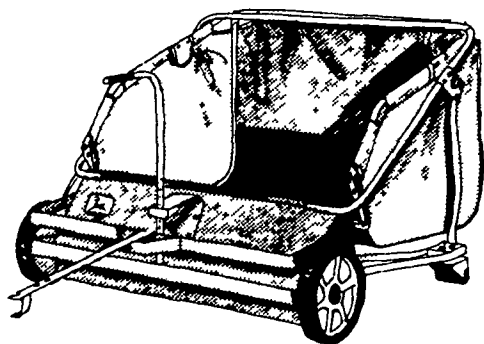
Use of the new optional drive unit releases the full power of the auger drive motor for feeding out silage fast in volume.

The unloading auger is shut off during silo filling and reactivated for



## 10- to 14-hp Tractors

John Deere 200 Series Tractors offer three power sizes: 10, 12, and 14 hp. All provide built-in headlights, 3.5 U.S. gallon gas tank, and variable-speed drive that lets you change ground speeds without clutching. Optional attachments include 38- and 46-inch mowers, front blade, snow thrower, and rotary tiller.



## Lawn Sweepers

John Deere Lawn Sweepers clean up leaves and grass clippings fast. Tow one behind your lawn tractor or riding mower to save hours of raking. Choose from sweeping widths of 31 or 38 inches. Capacities of 14 or 19 bushels. Heavy-duty hampers give non-stick cleanout and long wear.

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# Ladies Day Out set for July 18

LANCASTER, Pa. - The Pennsylvania Farmers Association Region I Ladies Day Out will be held on July 18 at the Treadway Resort Inn, Lancaster.

Featured speaker will be Mrs. Henry Hager, whose husband represents the 23rd Senatorial district and is Senate Minority Leader. She will talk about "Why I Let My Husband Go Into Politics."

Betty Groff, Mount Joy, noted Pennsylvania Dutch food expert and author, will demonstrate making egg cheese. Lancaster County Agricultural Agent M. Max Smith will discuss the television program, "Today's agriculture."

Also in attendance will be Joanne Zink, Donegal Mills Plantation, and Elaine Benner, state women's committee chairman. The regional talent contest will be held and door prizes awarded.

Registration, featuring PACMA snacks, will begin at 9:30 a.m., and the program will be at 10 a.m.

Tickets cost \$6 and can be purchased up to one week before the program from: Linda Kreider, Quarryville R1, 284-2242; Helen Wivell, Columbia R 1, 426-1303; Marian Brenneman, Mount Joy R 1, 653-4213; and Joan Rohrer, Nottingham R1, 215-932-8920.

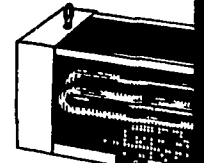


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Closed all day Wednesday

## LAWN AND GARDEN TRACTOR PULL

JULY 1, 1977

7:00 P.M.

To be held at the Lebanon Area Fairgrounds, corner of Rocherty and Cornwall Roads, south of Lebanon, off route 72.

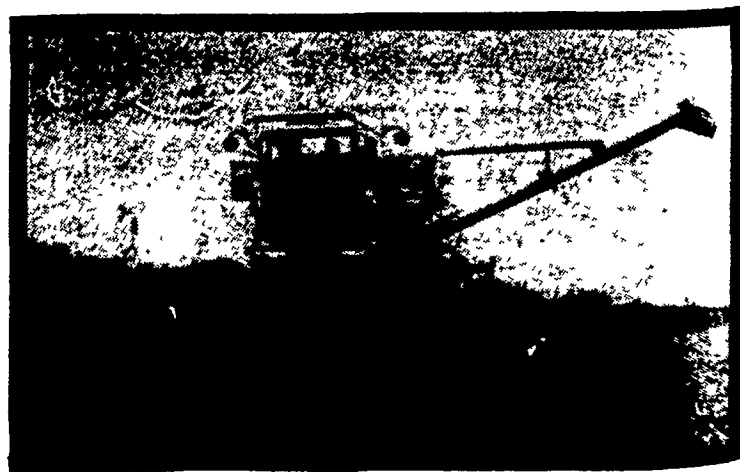
**STOCK CLASSES**  
**600 - 800 - 1000 - 1200**  
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\$5.00 entry per class Trophies in each class  
Admission: \$2.00 over 12  
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