



Too late for the tree but soon enough for thieves, neighborhood vigilance helped Illinois authorities catch and arrest illegal operators before they hauled away this log.

An Illinois forestry official records information about this near-perfect walnut theft. The state keeps thorough accounts of rustling incidents.

eager market in Germany, Japan, France and Italy.

Black walnuts grow from the U.S. to the Persian Gulf but species in Indiana, Illinois and part of Ohio are unsurpassed in their deep, brown color and ability to take a lustrous polish.

Farms, which contain 93 percent of all black walnuts, make perfect isolated targets. Location or natural hazards pose no hardship for the craftiest of rustlers. They cut through fences and drive miles along country roads or through woods to claim a tree. Some have even been

known to take down trees in daylight or in front yards.

It's all very calculated and even the trees help. Walnuts lend themselves as easy marks through their rough bark, long, tapered leaves, nuts, and their characteristics of being the last tree to leaf out in spring and first to adopt a yellow tinge in fall. They are then vivid landmarks from an airplane.

Rustlers may circle a farm or preserve by air, pinpoint trees and launch their attack at night, safe in the shelter and sound absorbing qualities of leaves.

To assure anonymity, rustlers often swath their chain saws in old rugs or silence them with styrofoam. They may use cross cuts on trees and drive boom trucks that leave no tracks. Early summer is best, since there is less insect damage to the trees, winter mineral or sap stains are less noticeable, and heat doesn't tend to form pitch pocket stains as frequently.

Trees are carefully felled to avoid damaging the valuable trunks and are usually loaded on another night to prevent detection. Thieves often hide stumps with brush as well. Farmers, especially absentee landowners, often don't discover thefts for weeks to months.

But rustlers can also take bold guises, openly confronting tree owners for permission to buy timber, Sester notes. They may present themselves as forestry representatives willing to cart away "diseased" trees for the owner or promise the farmer a third of the profits

Continued on page 14

Why TERSAN[®] fungicides give you

Total



LEAF SPOT (*Helminthosporium* spp.) on bluegrass.



DOLLAR SPOT (*Sclerotinia homoeocarpa*) on bentgrass.



TYPHULA BLIGHT or Gray Snow Mold (*Typhula itoana*) on a fairway.



LEAF SPOT on bentgrass (melting-out stage).



LARGE BROWN PATCH (*Rhizoctonia solani*).



TYPHULA BLIGHT or Gray Snow Mold, close-up view.



RUST (*Puccinia graminis*) on bluegrass.



FUSARIUM BLIGHT (*Fusarium roseum* and *Fusarium tricinctum*).



PYTHIUM BLIGHT or Cottony Blight (*Pythium* spp.).

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Turf Products

the great tree rip-off

Continued from page 11

from lumber rights they purchase for a small fee. The buyer then may pay back a third of his profits, but it's only profits from the sale to one mill. A second, third or fourth sale is funneled into his own coffers.

Tree rustling also discourages growth of new trees since the loss of unrecovered stolen logs in "fair market value" is not tax deductible. Only the cost basis of the timber is legally deducted.

The price for walnut trees has increased 730 percent in 20 years, according to the Indiana Tree Farm Committee, Indiana Division of Forestry, Purdue University Department of Forestry and Natural Resources.

As timber is depleted, prices leap, making rustling more profitable, even though walnuts are now less accessible and of lesser quality than before. Their principal use is for veneer wood but the nutmeats and nutshells find varied uses. Shells are the only products which clean jet engines without harm and work well as polish for automobile gears and as a seal against cracks in oil drilling.

When asked why all owners don't sell their walnuts to such a booming market, Sester said some don't know the value of their trees, may not wish to sell their crop or want to wait for a more lucrative sale. But the unwary landowner may find himself forced to drastic action. One farmer, exasperated by two rustling incidents, chopped and sold his remaining trees to stop the piracy.

Yet all isn't lost. Both Indiana and Illinois have laws regarding purchase of trees. Illinois', first adopted in 1967 and revised in 1969, requires buyers to be licensed by the Department of Conservation and registered with a certified card to be

displayed prominently in their place of business. The bill also requires buyers to post bonds of \$500 or up to \$10,000, depending upon their revenues from their latest year of tree buying. One license may cover up to 10 people.

Indiana's law also provides for a mandatory registration certificate for buyers and demands a surety bond, with the same \$10,000 bond ceiling as Illinois. Registration is good for a year.

Illinois also has a transportation act as another deterrent which requires anyone hauling two or more logs to prove ownership. Failure to do so may make the hauler disposition subject for court order. Owners hauling their own timber must register with the Department of Conservation stating their name, business name, if different, legal description of their real estate for growing trees or forest products, and their trees or products.

Registered owners receive a sign, decal or logo for identifying their trees. The law doesn't apply to removal of trees or parts of trees by the federal government, State of Illinois or local governments.

Transportation violations may result in \$300 in fines or six months in prison or both. Registration violations are subject to fines or prison sentences. Indiana allows for convicted thieves to pay triple stumpage damages based on tree value to owners. Clandestine tree stealing in both states is punishable with fines or sentencing, depending upon the judge. Convicted rustlers in Illinois were fined \$2,500 each.

John Datena, state forester in Indiana, said his state has no transportation laws because industry feels such laws are discriminatory and should be directed toward all

road transportation, not just logging.

Both states publish lists of certified buyers periodically and offer listings of owners who sell timber. Registration laws serve both buyers and sellers since they are dealing with licensed, legal businesses.

Other states, such as Kansas and Iowa, have considered similar laws. Missouri treats transportation violations as a felony. Their law stops "grandmawing," the practice of rustlers claiming logs "came from grandma's."

Sester reports the Illinois laws may need some adjustments but have worked very well. The licensing act has netted some 130 arrests in seven years and 50 more arrests have been made since the transportation act took effect.

However, some enforcement problems exist. "We may need a little tighter control," he says. "Any law officer can stop a rustler. State police make stops but we really don't have local law enforcement agents enforcing it."

Illinois last received a report of black walnut thievery in 1975 but Indiana had a report filed in mid-September. Reports are usually filed immediately but often cover thefts of months to years before. Datena says only one in 12 thefts may be reported since many owners are unaware of crimes. "They see no reason for anyone to take the chance to go in their woods after one or two trees," he explains. "We're just seeing the tip of the iceberg." Sester estimates Illinois reports run about one in seven thefts.

The real need is for landowners to protect themselves. Both Indiana and Illinois are educating farmers for growing as a crop and to judge a tree's value for growth or sale. Indiana will soon release a publication

Continued on page 17



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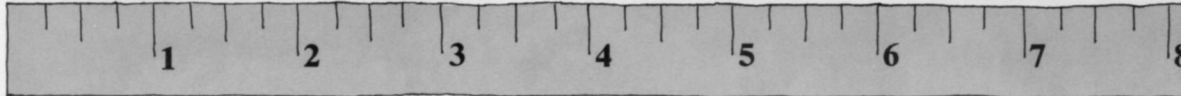
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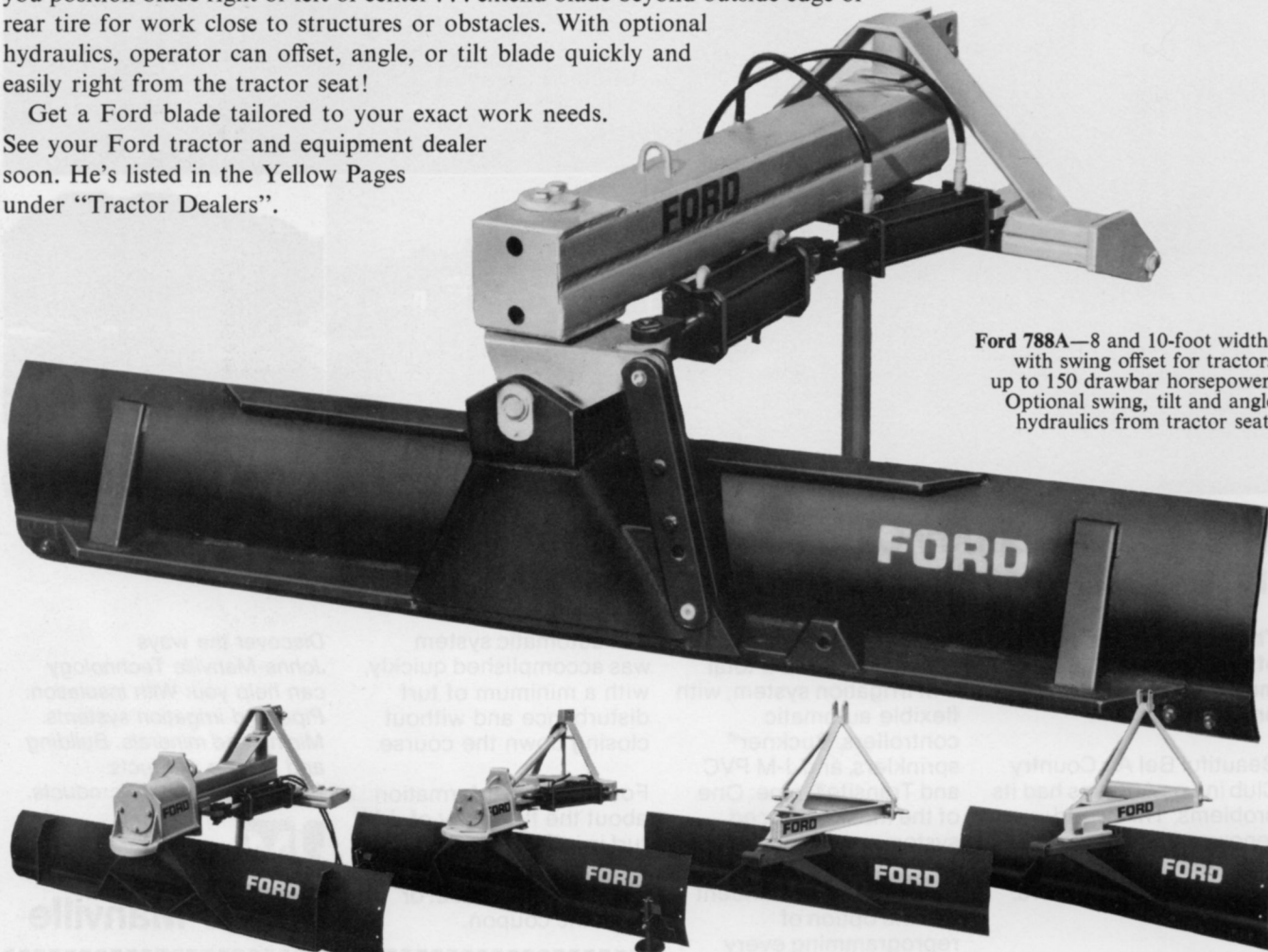


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FORD TRACTORS



the great tree rip-off

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for interested landowners about tree appraisal and protection.

Tree owners should begin protection by maintaining a record of their trees by locale, diameter at 4.5 feet above ground, height to the first large branch, and species. Distinguishing traits should also be noted. The best record is a photo of the tree's sides measured against a graduated pole for scale.

Marking trees is another good practice. If appearance isn't vital, a tree should be painted with a stripe down one side. Paints that won't wash off are best and the marking should cover all cracks and crevices. Phosphorescent paints are also good and each tree should be marked with a unique symbol applied with an artist's brush. Recording the mark is important. Sester warns against scratching a tree's bark since it could damage the trunk and thieves could easily scratch it to resemble a different mark.

"But the best protection is vigilance," Sester believes, pointing to the wisdom of telling neighbors about trips and arranging patrols by police or friends. Such action helps authorities catch thieves before the load their stolen trees. Landowners are advised to walk their property every few weeks to look for any tree tampering.

Neighbors should know location of trees and of dates of any timber sales (sales are often arranged 12 to 18 months before felling). Any information about suspects should be recorded by date, time and location and information about suspects and their vehicles should be reported to the landowners and police quickly. Indiana uses a timber theft alert to bring state foresters into action to warn some 200 veneer buyers about stolen logs.

If an owner decides to sell, Sester recommends he demand that the buyer prove his certification and state licensing. "Any good buyer will be perfectly willing to identify himself," Sester notes. "He'll be willing to pay you first before you agree to a job. Most timbermen are honest. They're hardworking but you have a certain element that are downright crooked. Most of the complaints we get about timbermen are misunderstandings."

He also considers competitive bids protection. Owners may want a forester to appraise their trees but it's not necessary.

"If trees are top quality, sealed bids are a good idea."

By not using tree laws and knowing the trees' value, a landowner can fall victim to any buyer who slaps down a low fee and hauls timber far beyond that price. Everyone wants a bargain but an owner best guard against it at his expense. "The owner should realize he's dealing with the most valuable hardwood tree we produce in the U.S.," Datena stresses. "It's just a matter of driving into the woods."

Although black walnut receives the most attention from thieves, white oak veneer markets have increased 200 percent since 1956 and red oak, soft maple and ash are popular targets in some places.

But the black walnut is not yet destined for extinction. Indiana grows and sells 500,000 walnuts saplings for orchards each year at two state nurseries and Illinois' two nurseries produce trees under controlled, optimum conditions, along with seed supplied by veneer companies. In 40 years, the states may find new, hearty, 18-inch trees, repopulating the countryside with nuts, shade and wood — the perfect size for rustlers. □

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CURIOUS ABOUT CULTIVARS?

by Dr. Robert W. Schery,
director, Lawn Institute

Creation of high quality lawngrass cultivars ("varieties") is a relatively recent happening. Other than a few empirically proven golf green bentgrasses (vegetatively planted), almost no intraspecific cultivar selection was undertaken in America prior to World War II, certainly not with the familiar seeded lawngrasses (principally Kentucky bluegrasses, *Poa pratensis*; fine fescues, *Festuca rubra*; perennial ryegrasses, *Lolium perenne*; unusual circumstances did produce an exceptional colonial bentgrass, Highland, naturally by ecotypic isolation in the Oregon Cascades).

Merion discovered

The situation changed rapidly after Superintendent Valentine noticed an outstanding clone of Kentucky bluegrass on an apron at the Merion golf course near Philadelphia, in the 1930s, destined to become "Merion". Merion opened the door for the avalanche of excellent new cultivars we have today, all of them improvements upon the common grass of yesteryear. Merion proved the public would willingly pay a substantial premium for outstanding performance in a turfgrass, something doubted until Arden Jacklin and his Merion associates bet otherwise in the 1950s. Merion remains an outstanding variety, as tables 1-3 point up, but in some areas newly established diseases make life difficult for this outstanding cultivar, and newer releases supersede it.

Within the last few years new cultivars have been developed at a heady pace. Until invention of distinctive germplasm in seed was given legal protection in America in 1971, initiative for breeding new turfgrasses resided largely with European breeders, (although interest in

the breeding of public cultivars has long existed in American experiment stations). Today literally hundreds of new proprietary cultivars have been released and are under test, from many sources. Some never quite "make it" commercially, because of inadequate seed yields, fading performance, or from lack of adaptation to the American climate (as tends to be the case with some cultivars selected in the milder European environment).

Nevertheless a huge assortment of excellent selections is at hand, to be worked with and proved out. Progress is ever ongoing, even though the "ideal" turfgrass is unachievable considering all climates, modes of care, and personal preferences. Even now breeders face changing standards, different from only a few years ago when fertilizer was inexpensive, environmental awareness less evident, inflation less a concern, and fuel shortages not even imagined. America seems gradually changing from a life style that emphasized luxury to one emphasizing practicality. Rather few Americans are likely to opt for a prima donna lawngrass any more, simply because it "looks pretty"!

Sorting them out

With the abundance of new cultivars, it is necessary to sort them to determine which are best, for what purposes and in what locations. That things are not always what they seem to be is evident from tables 1-3; notable inconsistencies can be found, depending upon region, the evaluator's impression, and sheer chance (often two plots of the same cultivar, in the same location, managed in like fashion, will rate quite differently!). So there is a place for "specialist" grasses that would otherwise seem to be out-

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Dr. Schery holds a A.B., M.S. and Ph.D. from the University of Washington, having done research at the Missouri Botanical Gardens. He has taught botany at the University of Wisconsin and served as a botanist for Monsanto Chemical and Scott Seed Co. before joining the Lawn Institute in 1957.

TABLE 1. Performance of lawngrass cultivars on the West Coast. A = in top third (A* = in top 10%), B = in middle third, C = in bottom third of ratings compiled by local authorities. For specific responses, 1 = good, 2 = medium, 3 = poor.

| KENTUCKY BLUEGRASSES | WASHINGTON | | | | leafspot | CALIFORNIA statewide | OREGON |
|-------------------------|-------------------|----------------------|----------------|----------|----------|-------------------------|--------|
| | low mowed | | tall mowed | | | | |
| | winter | summer | winter | summer | | | |
| Adelphi | B | B | A | A | 1 | | |
| Arboretum | | | B | B | 3 | | |
| Arista | C | B | B | B | 1 | | |
| Baron | A | A | A | A* | 2 | A | |
| Birka | A | B | A | B | 1 | | |
| Bonnieblue | A* | A* | A | A | 1 | | |
| Brunswick | C | C | B | C | | | |
| Enmundi | | | | | | | |
| Fylking | B | A* | C | C | 1 | A* | |
| Galaxy | A* | A | A | B | 2 | | |
| Georgetown | | | | | | | |
| Glade | B | A | A | A | 3 | | |
| Majestic | B | A | A | B | 2 | | |
| Merion | B | A | B | A | 3 | C | |
| Nugget | A | A | C | B | 1 | B | |
| Pennstar | B | B | C | B | 1 | B | |
| Plush | | | | | | | |
| Prato | C | C | C | C | 2 | C | |
| Ram I | C | B | A | A* | 3 | | |
| Sodco | B | B | A | B | 3 | A | |
| Sydsport | A* | A* | A | A | 1 | | |
| Touchdown | | | | | | | |
| Common | C | C | C | C | 2 | C | |
| Park | | | | | | C | |
| Windsor | B | A | B | A* | | B | |
| FINE FESCUES | Winter | Summer | Red thread | Fusarium | | | |
| Atlanta | B | A | 2 | 2 | | | |
| Banner | | | | | | | |
| Fortress | C | C | 3 | 3 | | | |
| Highlight | A | A | 1 | 1 | | C | |
| Jamestown | B | A | 1 | 1 | | A | |
| Koket | B | A | 2 | 1 | | | |
| Pennlawn | C | B | 2 | 1 | | B | |
| Ruby | C | B | 3 | 1 | | C | |
| PERENNIAL RYEGRASSES | Winter quality | Summer appearance | Neat mowing | | | | |
| Citation | | | | | | | A |
| Compas | B | C | 2 | | | | C |
| Derby | | | | | | | A |
| Diplomat | | | | | | | A |
| Game | C | B | 2 | | | | B |
| Manhattan | A | A | 1 | | | A | B |
| NK-100 | C | B | 3 | | | | C |
| NK-200 | B | A | 2 | | | B | |
| Pelo | B | A | 2 | | | | |
| Pennfine | C | A | 2 | | | A | B |
| Yorktown | | | | | | | A |
| Common | C | B | 3 | | | | C |

TABLE 2. Performance of lawngrass cultivars in the Midwest. A = in top third (A* = top 10%), B = in middle third, C = in bottom third of ratings compiled by local authorities. For specific responses, 1 = good, 2 = medium, 3 = poor.

| KENTUCKY BLUEGRASSES | MISSOURI | | | | | ILLINOIS | | ALABAMA | MICHIGAN | | | | | | |
|-----------------------------|------------------------------|----------------|---------------|---------------|---------------|--------------------------------|------|--------------------|-------------------------------|-----------|---------------|---------------|-------------------|---------------------------|---|
| | 5 Year average Central | 2 yr. Cent. | 2 yr. S.E. | 2 yr. S.W. | Leaf- spot | Rhizoc- tonia & Fusarium | Rust | overall average | Southern 5 year average | Spring | Leaf- spot | Snow- mold | 4 year average | Northern Snow- mold | |
| Adelphi | C | B | A* | B | | | | A | B | A* | 1 | 1 | 1 | A | 1 |
| Arboretum | | | | | | | | | | | | | | C | 3 |
| Arista | C | | | | 3 | 3 | 3 | | | C | 3 | 2 | 3 | B | 3 |
| Baron | | B | A | B | | | | B | A | A | 1 | 2 | 1 | A | 1 |
| Birka | A | | | | | | | | | | | | | | |
| Bonnieblue | A | C | C | B | | | | A | B | A | | | | A | 1 |
| Brunswick | | A | A | A | | | | | | | | | | A | 2 |
| Enmundi | | A | A | A | | | | A | B | | | | | | |
| Fylking | A | C | C | B | | 3 | | C | | B | 2 | 2 | 3 | A | 3 |
| Galaxy | B | B | B | B | | | | A | | A* | 1 | 1 | 1 | A* | 1 |
| Georgetown | B | | | | | | | | | | | | | A* | 2 |
| Glade | | A* | B | A | | | | B | | | | | | | |
| Majestic | B | B | C | C | | | | A | C | | | | | | |
| Merion | B | B | B | B | | | 3 | A | C | A | 1 | 1 | 1 | A | 2 |
| Nugget | C | C | C | B | | 3 | | C | B | A | 1 | 1 | 1 | B | 2 |
| Pennstar | B | B | C | C | | | | B | | B | 2 | 1 | 3 | B | 3 |
| Plush | | A | A | A* | | | | A | | | | | | | |
| Prato | | | | | | | 3 | | | C | 3 | 2 | 3 | B | 3 |
| Ram I | | B | A | C | | | | B | C | | | | | | |
| Sodco | A* | B | A | B | | | | A | | A | 1 | 1 | 1 | B | 1 |
| Sydsport | A | C | A* | C | | | | B | | A | 1 | 1 | 1 | A | 3 |
| Touchdown | | A | C | B | | | | A | C | | | | | | |
| Common | C | B | C | B | 3 | | | | | C | 3 | 3 | 3 | C | 3 |
| Park | B | C | A | A | 3 | | | B | | C | 3 | 3 | 3 | C | 3 |
| Windsor | A* | A* | A* | A | | | | A | | C | 2 | 3 | 2 | C | 3 |
| FINE FESCUES | | | | | | | | | | 2 yr. av. | | | | 5 yr. av. | |
| Atlanta | | | | | | | | | | A | | | | | |
| Banner | | | | | | | | | | | | | | | |
| Fortress | | | | | | | | | | | | | | | |
| Highlight | | | | | | | | C | | A | | | | C | |
| Jamestown | | | | | | | | A | | A | | | | B | |
| Koket | | | | | | | | A | | B | | | | | |
| Pennlawn | | | | | | | | A | | B-C | | | | A | |
| Ruby | | | | | | | | | | C | | | | B-C | |
| PERENNIAL RYEGRASSES | | | | | | | | | | | | | | | |
| Citation | | | | | | | | | | | | | | | |
| Compas | | | | | | | | | | A | | | | | |
| Derby | | | | | | | | | | | | | | | |
| Diplomat | | | | | | | | | | | | | | | |
| Game | | | | | | | | | | | | | | | |
| Manhattan | | | | | | | | A | | A | | | | | |
| NK-100 | | | | | | | | C | | C | | | | | |
| NK-200 | | | | | | | | B | | | | | | | |
| Pelo | | | | | | | | C | | A | | | | | |
| Pennfine | | | | | | | | A | | A | | | | | |
| Yorktown | | | | | | | | | | | | | | | |
| Common | | | | | | | | C | | | | | | | |