

# How Johnsongrass came to America and spread

LANCASTER — Farmers have been debating the origin of rhizome Johnsongrass in meetings across Pennsylvania for many years, but few dispute the legendary ability of this yield-robbing weed to make farming a losing proposition when left uncontrolled.

There are many theories as to how Johnsongrass, now rated one of the world's ten worst weed problems, was first introduced to the United States. Some say it was imported from Europe, along with other grasses, by American farmers.

Others believe that a man named James Davis—sent to Turkey by the State Dept.—brought back Swiss watches packed for protection in Johnsongrass seeds. But, nobody knows for sure.

Once here, this noxious weed was spread rapidly

through various means. Seedmen regularly sold Johnsongrass seed to farmers who planted it for hay. "Johnsongrass hay" was a staple of cavalry horses during the Civil War who in turn spread the seeds, which were dispersed in the hay, across the country via their digestive tracts.

Additionally, hay was frequently shipped by rail from one encampment to another, and the seeds often escaped from the box cars to infest right-of-ways.

In any case, this tough-to-control perennial has emerged as one of the farmer's most difficult weed menaces. And, according to Sheldon Blank, Technical Supervisor and weed control specialist from Monsanto, this is in large measure attributable to its primary means of reproduction.

"The laterally-growing underground rhizome system of Johnsongrass can produce over 200 feet of new rhizome growth in a single season from one rootstock, and send up shoots continuously if left untreated and undisturbed," Blank explains.

"Johnsongrass competes with planted crops for light, moisture and nutrients. In addition, the rhizomes can act as host to toxic substances and diseases such as maize dwarf mosaic and maize chlorotic dwarf, which are common in Johnsongrass-infested corn," he continues.

"These diseases can result in stunted corn plants and dwarfed ears in non-resistant varieties."

Blank says it takes only 21 days for seedling John-

songrass to develop rhizomes.

"If the infestation is severe enough, rhizome Johnsongrass can overtake a field in as little as three years, possibly costing growers an entire harvest," he contends.

Yield losses of 50 percent or more in heavily-infested fields are not unusual, he states.

On top of its ability to reproduce through an extensive rhizome system, Johnsongrass panicles have also been shown to be prolific seed producers.

"Each panicle is capable of producing as many as 350 seeds," Blank observes. "And, to make matters worse, the seeds can remain viable in the soil for up to 25 years, representing a constant source of reinfestation problems."

While cultural practices such as crop rotation may slow the progression of Johnsongrass in a given field, the weed control specialist notes that the rhizomes are likely to continue flourishing.

"In general, research has shown that chuseling and disking give effective mechanical control of rhizome Johnsongrass because shortened rhizomes dry out and die faster when brought up to the soil surface. This practice, however, can also generate more widespread weed infestations by spreading localized infestations over an entire field," he cautions.

In the area of chemical control options, Blank notes that contact herbicides have shown the ability to "burn down" Johnsongrass plants to the soil surface. The drawback, he feels, is that the rhizomes can still flourish and send up new shoots in a matter of weeks to produce an equally heavy infestation.

"Most farmer plagued with Johnsongrass infestations know that the only way to

make their fields productive again is to destroy those underground rhizomes, and that is no easy task," Blank believes.

"For instance, soybean producers and farmers with late-planted corn may find that they have actively-growing Johnsongrass reaching the boot-to-head stage of growth in time to apply Roundup prior to planting in the spring," he continues. "Once applied, the chemical reaches the weed's rhizome system by penetrating leaf and stem surfaces and translocating down into the rhizomes, preventing regrowth from this underground network." A recommended seedling control program should also be employed.

While the origins of Johnsongrass remain something of a mystery, area farmers don't make much of a secret of their desire to eradicate this noxious weed from their acreage. And, with a consistent program of control measures, they may be able to do just that.

## Special price building... has grain storage capabilities!

SAVE UP TO 20% ON OPTIONAL GRAIN STORAGE LINER PACKAGES!

On-the-farm grain storage is in demand now more than ever. A dual purpose Morton Building is the answer—a huge grain repository when needed and equipment storage when empty.

For a limited time, Morton is offering discounts on optional, total or partial grain storage liner packages where you can save up to 20%, plus qualify for government loan programs.

**BUY AND BUILD NOW... BE READY FOR HARVEST!**  
To take advantage of this outstanding building



price, we ask your cooperation with the following: Provide a level building site (our salesman will assist with site preparation guidelines), Furnish unloading help, Participate in our 3 payment plan (1 Down payment, 2 Delivery payment and 3 Completion payment),

And accept delivery and erection at Morton Buildings convenience. Also note travel expenses will be added if your building site is more than 40 miles from the sales office. No sales tax need be added (Price expires April 15, 1980). The price shown below is for the building and its construction only and does not include a grain storage liner package.

**\$13,326**

54' x 72' erected storage building includes 24' x 14' double end door, 18' double side door, walk door with glass, 4 skylights — white or green. Length may be increased in units of 9' at \$1,123. Price does not include grain storage liner package.



FREE WEATHER VANE with every building purchased!

For further information mail coupon to the nearest Morton Sales Office listed below



Serving Central Pa and Maryland  
RD 4, Box 34A  
Gettysburg, PA 17325  
Ph 717-334-2168

Serving Eastern Pa and New Jersey  
Box 126,  
Phillipsburg, NJ 08865  
Ph 201-454-7900

Serving North Central Pa Area  
P O Box 937  
State College, PA 16801  
Ph 814-383-4355

Send information on MORTON BUILDINGS

Have your salesman phone for an appointment

Name \_\_\_\_\_

Address \_\_\_\_\_

Telephone No \_\_\_\_\_

LF

## THE TASK MASTERS



### John Deere "Little-Big" Diesel Tractors

Plowing or planting. Mowing or landscaping. Loading or backhoeing. These John Deere "Little-Big" Tractors are at home in most any working environment. Choose from three models — 850, 950, or 1050 — with respective horsepower of 22, 27 and 33 at the PTO.\* All have 3-cylinder diesel engines with wet-sleeve design for better heat dissipation. Eight-speed transmission. Differential lock. Hand and foot throttles. Category 1 3-point hitch. 540-rpm PTO. Color-coded controls. And more.

The all-new 1050 features a turbo-charged engine for more power, smoother operation and fewer emissions. Plus a continuous-running PTO for added productivity... load-and-depth-sensing hitch... and swinging drawbar. Both the 950 and 1050 can be ordered with mechanical front-wheel drive for added traction.

If you need a compact tractor that'll handle a range of jobs, see us today. Check out our line of tractor-matched implements. Then ask for a demonstration. "Little 'big' diesel tractors — the task masters from John Deere.

\*Maximum PTO horsepower measured at 2600 engine rpm for the 850. 2400 engine rpm for the 950 and 1050 by official test.



Nothing runs like a Deere®

ADAMSTOWN EQUIPMENT INC.

Mohnton, RD2, PA 19540 (near Adamstown)  
Phone (215) 484-4391



A. B. C. GROFF, INC.  
New Holland, PA  
Phone (717) 354-4191

LANDIS BROS. INC.  
Lancaster, PA  
Phone (717) 291-1046