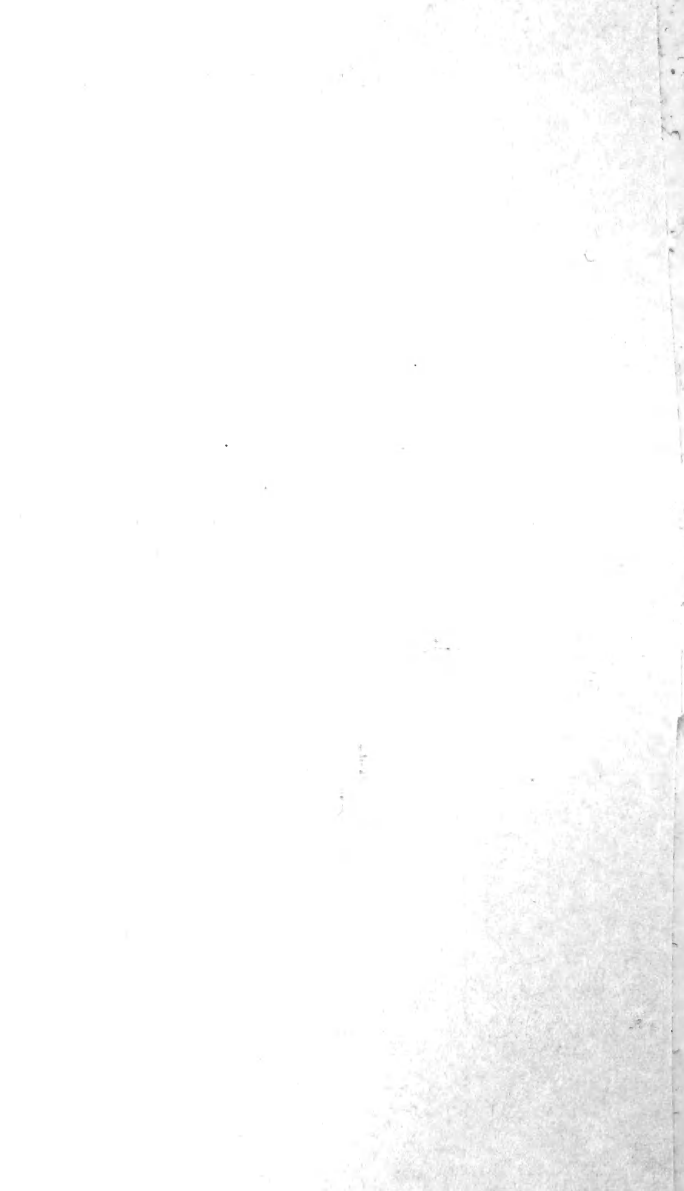


## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



12.75

1942

RECEIVED  
FEBRUARY 27 1942

★ FEB 27 1942  
U. S. Department of Agriculture

**Jacques**

**HYBRID CORN**

*Question and Answer*

**BOOK**

U. S. Department of Agriculture



## 32 CROPS OF NORTHERN SEED CORN!

Since 'way back in 1908, Wm. H. Jacques has been **EXCLUSIVELY** producing Northern Bred, Northern Grown Seed Corn. He has been awarded the honor of "Premier Seed Grower" in Minnesota and "Master Farmer" in Wisconsin.

Today, over 3,400 acres of fertile valleys in Wisconsin, Minnesota and Iowa—**NATURALLY ISOLATED FROM OTHER CORN BY HILLS AND TREES**—produce the **EXTRA PURE** Jacques Proven Hybrid Seed Corn.

Visitors come from hundreds of miles to study the famous "Small Lot System" used in producing Jacques Proven Hybrid Seed Corn. Jacques 2

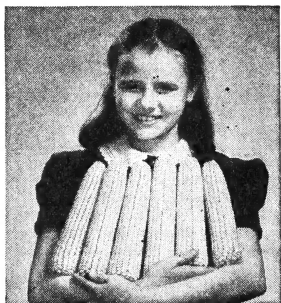
**IT PAYS TO PLANT GENUINE**

owned and operated the **FIRST** large commercial Wright Seed Corn Drier and the present drier is on the site of the original.

The state maintains a building right on the Jacques farms. State officials constantly double check the isolation of Jacques Seed Fields, the thoroughness of detasseling, and the grading and germination of the seed crop.

When you buy hybrid seed corn trademarked with the famous "baby on the pile of corn" you **KNOW** that

1. You are getting a **PROVEN VARIETY**—tested and proven for superior yield, standing ability, grain quality, uniformity, and resistance to adverse weather and the disease organisms that cause smut, rot and mold.
2. You are getting **PROVEN DEPENDABLE MATURITY**—hybrids that are northern bred and northern grown.
3. You are getting a **PURE** hybrid.
4. You are getting **VIGOROUS** Germination Tested Seed.
5. You are getting **EVENLY GRADED** seed, planter plate tested.



*"Patsy" is Bill Jacques' youngest daughter. When she was a baby he photographed her on a pile of ear corn and made her his trademark. Today the picture of the baby girl on a pile of corn is a symbol throughout the northern corn country of the best hybrid seed corn that money can buy.*

# WHAT IS HYBRID CORN?

If a hog producer crossed a pure bred Poland China boar with a pure bred Chester White sow, the pigs would be hybrids. If he crosses a pure bred Duroc-Jersey boar with a pure bred Tamworth sow, the pigs would also be hybrids. But they would be different hybrids.

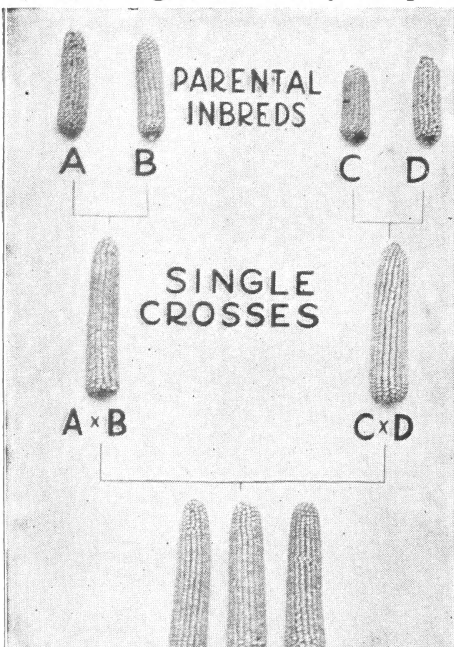
It's the same with corn. When pure bred strains of corn are crossed you get hybrid corn. The kind of hybrid corn you get depends on which pure bred strains are crossed. Some crosses of pure bred strains make desirable hybrids. Other crosses of pure bred strains make undesirable hybrids. So while hybrid corn is defined as a cross of pure bred (or inbred) lines of corn, there is more to it than merely crossing different strains.

The illustrations at the right tell how the corn breeder goes about the job of producing a desirable

hybrid.

The picture at the left shows how most commercial hybrid seed corn is produced — first by crossing inbred strains to make “single cross hybrids” — then by crossing two single cross hybrids to make a “double cross” hybrid. Sometimes an inbred is crossed with a single cross hybrid and a hybrid so produced is called a “three way hybrid.”

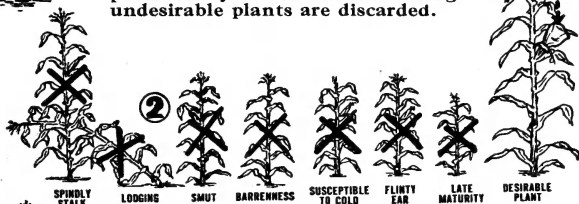
4



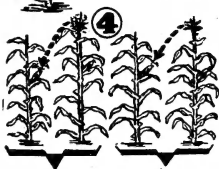
# HOW IS HYBRID CORN PRODUCED ?

**STEP 1** A selected stalk of some previously open pollinated variety (or of a hybrid cross) is self pollinated by fertilizing its silks with pollen from its own tassel.

**STEP 2** Kernels from this self-fertilized ear grow into a variety of kinds of corn—the inbreeding brings out the “hidden meannesses.” Only the most desirable plants are perpetuated by continued inbreeding—undesirable plants are discarded.

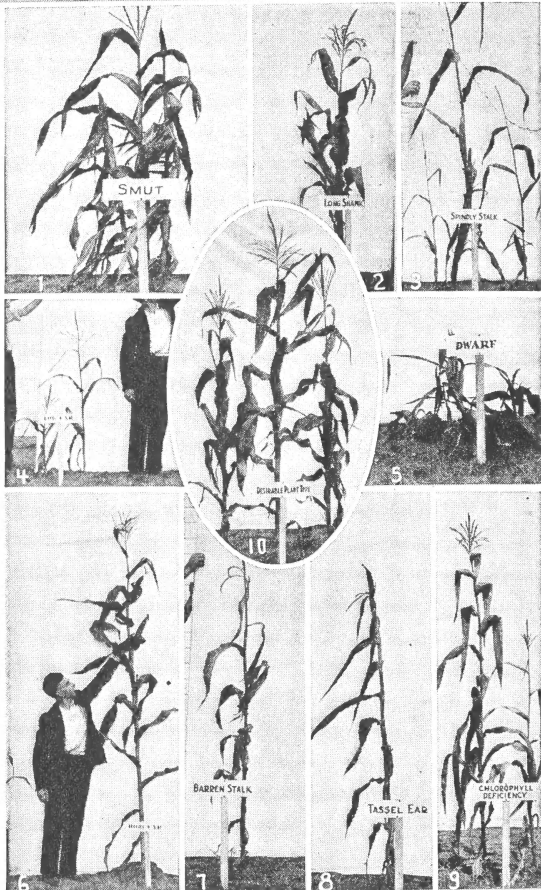


**STEP 3** After three to ten or more years of this inbreeding and selecting process, a “purified inbred” is obtained. This is a desirable plant, but the continued inbreeding has dwarfed it and it produces only a small nubbin-like ear. It can be multiplied indefinitely by continued inbreeding.



**STEP 4** Experimental crosses are made, each involving 2 to 4 different “purified inbreds.” Crosses of two or more unrelated inbreds exhibit “hybrid vigor” and are normal in size. These experimental crosses are tested.

**STEP 5** The desirable crosses, the “happy marriages” are produced in commercial quantity for seed by planting the foundation strains in isolated fields, leaving the tassels on the “male” strain and keeping them pulled out of the “female.” Seed is saved only from the detasseled stalks.

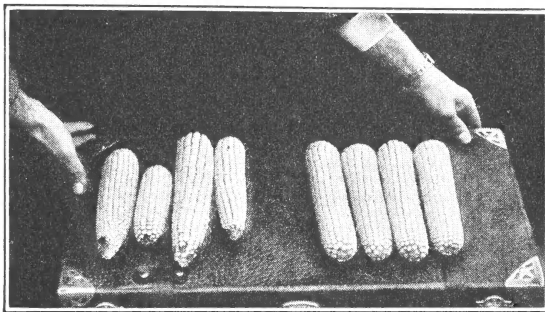


When corn is inbred, it breaks down into the component parts of its ancestry. Only the desirable plants like the plant in the center oval above are perpetuated by continued inbreeding. The other pictures show some of the undesirable traits eliminated by inbreeding: (1) smut, (2) long shanks, (3) spindly stalks, (4) low ears, (5) dwarfs, (6) high ears, (7) barren stalks, (8) tassel ear, (9) chlorophyll deficiency.

IT PAYS TO PLANT GENUINE



## WHY IS HYBRID CORN SUPERIOR TO OPEN POLLINATED?



All open pollinated corn is "mongrel" corn—it is a mixture. Some plants are good plants. They have a good stalk and root and a good ear and they mature in season. But other plants in a field of open pollinated corn are poor plants that cut down the yield. The stalks lodge or break and make extra work at harvest. The reason why hybrids are generally better than open pollinated varieties of the same maturity is that the process of breeding has eliminated the undesirable plants. The corn at the left in the picture above is open pollinated. The hybrid at the right is more uniform, makes a bigger crop of better quality corn.

## CAN I SAVE SEED FROM MY CROP OF HYBRID CORN?

No, you have to buy your seed for every crop if you want to get real hybrid because the real hybrid has to be produced by crossing pure lines or single crosses of pure lines. The ears you get out of your field are partially inbred. And this "second generation" seed will yield perhaps 25% less. It certainly does not pay to plant second generation seed.

## **ARE ALL HYBRIDS EQUALLY GOOD?**

Hybrid corn is not a special variety of corn. Actually there are many different varieties of hybrid corn. What the hybrid is depends upon the characteristics of the pure lines or "inbreds" which were crossed to produce it. If the inbred lines are made out of varieties that are not adapted to the locality where the hybrid is to be grown, then there is a good chance that the hybrid will not be adapted to that locality. On the other hand, if the inbred lines are bred out of locally adapted lines, then the chances are good that the hybrid will be adapted to the locality. Jacques Proven Hybrids are northern bred out of cold resistant northern acclimated varieties. They can be depended upon to thrive under the weather and soil conditions of northern corn growing regions and to mature a sound, dry crop within the season.

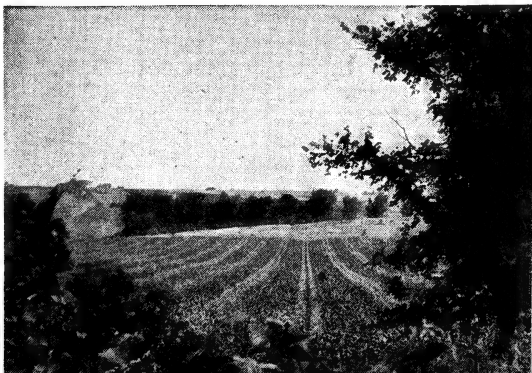
## **IF THE SAME PARENT STOCKS ARE CROSSED BY THE JACQUES SEED CO. AND BY SOME OTHER SEED COMPANY, WILL THE QUALITY BE IDENTICAL?**

The choice of parent stocks is only one factor in producing hybrid seed corn. The isolation of the seed fields, the roguing of the parent lines, the thoroughness of detasseling, the methods and equipment used in harvesting, drying, shelling, grading and treating the seed are other tremendously important factors. Experience is also a big factor.

# DOES JACQUES HAVE A CORN BREED- ING PROGRAM?

Yes, thousands and thousands of corn plants are inbred on the Jacques farms each year and the finished hybrids are tested extensively in official state yield trials and farm plots throughout the northern corn belt. Jacques has one of the most extensive private breeding, testing, and crossing programs in the north and is constantly at work improving the foundation lines used in producing Jacques Proven Hybrids and making and testing new hybrids. Jacques also cooperates closely with the breeders of the northern State Experiment Stations and utilizes the foundation crosses produced by such eminent corn experts as Dr. N. P. Neal, of the University of Wisconsin, and Dr. H. K. Hayes and his associates of the University of Minnesota. Many of our most popular crosses are the products of the breeding work of these northern corn experts.

*A perfectly  
isolated  
Jacques  
Hybrid  
seed field.*



# DOES THE PRODUCTION OF HYBRID SEED CORN REQUIRE SPECIAL FIELDS?

If the seed fields are not isolated from other corn, pollen will be blown in by the wind and the seed will be impure. The purchaser of that seed will pay for hybrid but he will not get a pure hybrid. Nature made the Jacques farms especially for producing hybrid seed corn. For seed fields, Jacques prefers fertile valleys, surrounded by hills and trees and that is one reason why Jacques Hybrid Seed Corn is famous for its extra purity.

# IS DETASSELING IMPORTANT ?

Your hybrid seed corn is produced by planting two unrelated corns in the same field and pulling the tassels out of one of these so that all the ears on the detasseled stalks necessarily have to get their pollen from the other stalks. The corn that is detasseled is called the "female" and seed is saved only from the detasseled, or "female" stalks. If a tassel is left on a single female stalk, it may pollinate as many as fifteen million kernels and none of these fifteen million kernels will be a genuine hybrid! One of the reasons why Jacques Proven Hybrids are extra pure is that the seed fields are detasseled every twelve hours during the season when corn is tasseling and silking and the thoroughness of detasseling is double checked not only by Jacques own experienced supervisors but also by Official State Supervisors. The state maintains a building right on the Jacques farms and a state man is constantly on hand during the detasseling season.



*Each seed ear is individually inspected and all loose corn is discarded.*

# HOW IS SEED CORN HANDLED IN THE JACQUES SEED HOUSE?

The seed ears are handled entirely by hand. There are no conveyors, no machinery to bruise or scratch the kernels. When the seed coat of a corn kernel is scratched, disease germs can enter just like they can enter the human body when the human skin is scratched. We believe that the extra vigor of Jacques Proven Hybrid Seed Corn is due partly to the system of handling the seed ears by hand and carefully guarding against mechanical damage.

# HOW IS JACQUES PROVEN HYBRID SEED CORN DRIED?

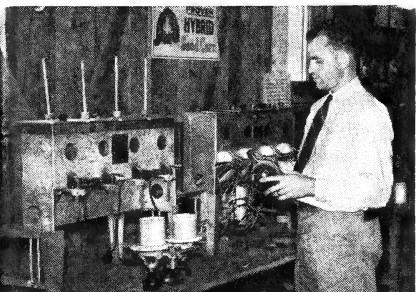
Jacques seed ears are brought direct from the fields to the drier—are never held in wet storage. The drier has a capacity of 20,000 bushels at one fill. Heated air, temperature controlled by thermostats, is circulated through the seed ears by powerful fans until the seed is uniformly reduced to 13% moisture. Jacques owned and operated the first large commercial Wright Seed Corn Drier and so has had more experience than any other hybrid seed corn producer in the operation of modern seed corn driers. Inexperienced operators may hurt the vigor of seed corn even if they do not kill it by improper drying.

*The big drier  
is divided in-  
to small bins  
for more uni-  
form drying.  
Each bag of  
seed is of the  
same uni-  
form high  
quality.*

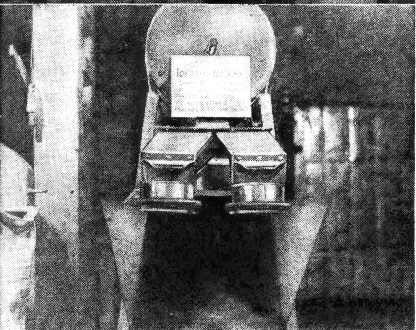
11



# WHAT DOES JACQUES DO TO INSURE VIGOROUS SEEDLING GROWTH?



*Seed corn has the greatest vigor when it is kept at 13% moisture—and it isn't necessary to guess at Jacques Seed Company. Every lot of seed is continuously moisture tested through every operation.*



*This is a new machine invented by Professor Wright of the University of Wisconsin — the only one of its kind! It coats every kernel with just exactly the right amount of mercury dust to prevent seedling rots, and to speed germination and early growth.*

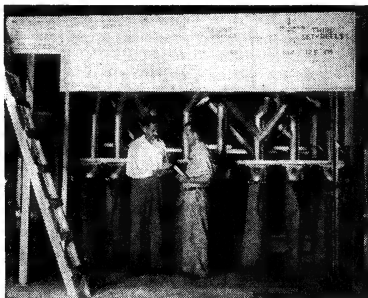


*When you plant Jacques, you plant seed of highest vigor. Every lot is germination tested three times IN DUPLICATE — when it is shelled, when it is graded, and when it is treated and bagged. The last test is made by the state and is written on the tag on each bag.*



# HOW ARE JACQUES PROVEN HYBRIDS GRADED?

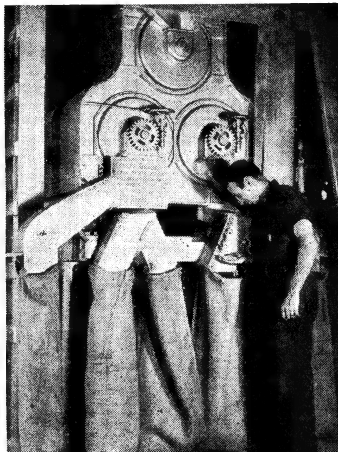
*After Jacques seed ears are dried, sorted and shelled, the shelled corn is cleaned and separated with a clipper grader, and then goes through this cylinder grader for width and thickness separations. Kernels varying as little as 1-64th of an inch are separated into different size grades.*



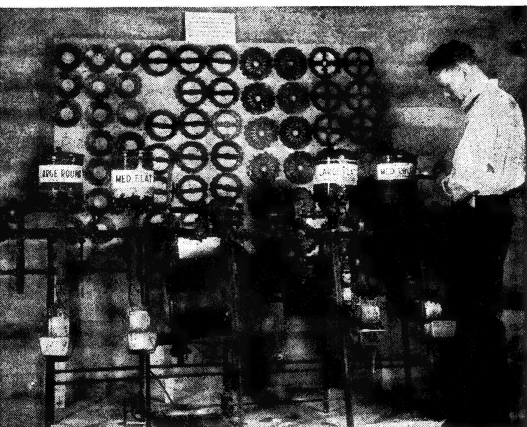
The new improved grading system used by the Jacques Seed Company has been worked out in cooperation with Professor Wright of the University of Wisconsin to give you seed uniformly graded in all dimensions. Farmers have frequently said that you can mix two grades of Jacques seed and still have a better graded product than some of the seed corn planted each year! Without the right stand, no seed can give you the maximum yield of which it is capable. The extra good grading of Jacques Proven Hybrids means money in your pocket.

*Jacques pioneered the length grading of seed corn—and here is the Jacques length grader. Your Jacques seed is graded not only for width and thickness of kernel, but also for length of kernel, when this is required for accurate planting.*

13



# HOW TO SELECT THE RIGHT PLANTER PLATE?



Each lot of Jacques Proven Hybrid Seed Corn is put through actual corn planters in the Jacques seed house and a printed sheet with each bag tells you which plates were most satisfactory with each of the most popular makes of planters. Because there is a certain amount of wear in a planter, it is a wise precaution to block up your planter and test the drop with the recommended plate before planting time; if your planter is worn, it may be necessary to use a slightly different plate or to modify the recommended plate. If a farmer will use the right planter plate, check it, and if necessary adjust it, before planting time, and then will recheck his planting after he gets into the field and be very careful about not planting his corn too deep, he should get a perfect stand with the extra vigorous, germination tested Jacques Proven Hybrid Seed Corn.

IT PAYS TO PLANT GENUINE

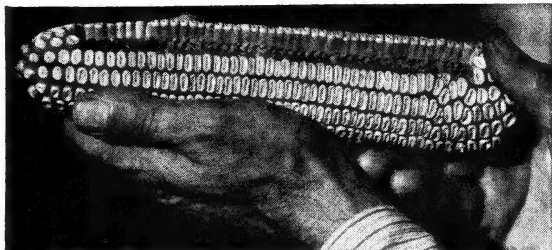


# ARE FLAT KERNELS BETTER THAN ROUND KERNELS?

The heredity of the corn plant is carried only in the germ and the shape of the rest of the kernel doesn't make any difference in the plant that is produced. If the right plates are used you can get just as good corn with round kernels and save a lot of money.

# DO BIG EARS MEAN BIGGER YIELDS?

You have to figure shrink for cobs and water before you can know your yield per acre of dry, shelled corn. Late corns that make a big cobbed, sappy ear may fool you on yield. Also, long shanked corn may fool you. Jacques Proven Hybrids have been bred for many years for short shanks, because short shanked corn doesn't leave so much corn in the field at harvest. And Jacques Proven Hybrids are especially famous for dependable maturity and highest shelling percentage.

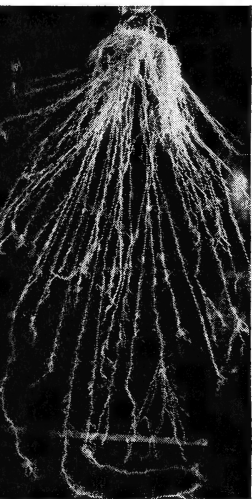




HOME OF JACQUES PROVEN HY

# WHY DOES IT PAY Jacques

1. Northern bred out of hardy cold resistant parent lines, Jacques Proven Hybrids dependably mature a larger crop per acre of sound dry corn.



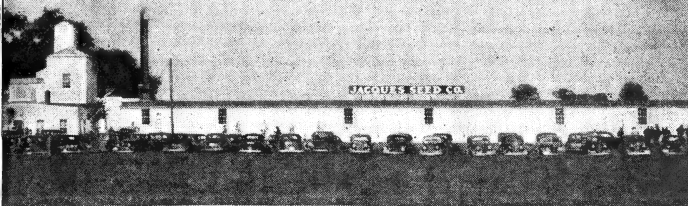
2. Ruthlessly selected for deep fibrous roots and strong sturdy stalks, Jacques Proven Hybrids stand up.

3. Jacques Proven Hybrids have been especially selected for sound, disease-free ears with deep, closely packed kernels of extra high shelling percentage. They have been selected for well dented kernel type, never too hard or flinty for feeding without soaking or grinding, and

*Jacques Proven Hybrids are famous for deep fibrous roots. Here's a typical hill with roots extending 8 feet! These deep roots firmly anchor the plant, get water and plant food from the whole seed bed, help the plant to resist drouth, and prevent loss of plant food by leaching.*

16





HYBRIDS, PRESCOTT, WISCONSIN

## TO PLANT *Proven* HYBRIDS?

for short shanks, uniformity and easy husking.

4. The superiority of Jacques Proven Hybrids is especially noteworthy in adverse seasons. They have been selected for a high degree of resistance to unseasonable cold, heat, drouth, and the attacks of disease germs that cause rots, smuts and molds.

5. Jacques Proven Hybrids are famous for **EXTRA PURITY, EXTRA VIGOR** and **EXTRA GOOD GRADING.**

*Jacques Proven Hybrids are famous for strong, wind-resistant, disease-resistant stalks. Your Jacques corn stands up. You save enough in harvesting cost alone to pay for your seed!*

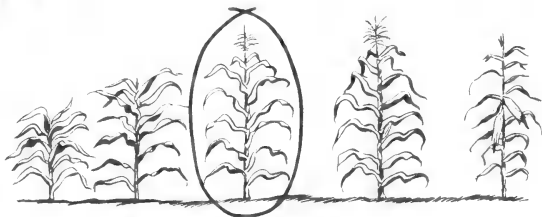
17



# Jacques PROVEN HYBRIDS!

**NEW!**

# WEATHER INSURANCE JACQUES MATCHED MATURITY



- 1** A hot dry spell hurts corn the most when it occurs just as the corn is silking and tasseling. It can rob you of the extra bushels of corn you want to sell or feed next fall.



- 2** You can't control the weather—but you CAN control the time your corn reaches the critical silking period.

- 3** Every strain of Jacques Proven Hybrid has been accurately tested for Relative Maturity. (The first two or three numbers in each strain number indicate its maturity.)



18

IT PAYS TO PLANT GENUINE

# INSURANCE with MATURITY Selection Service



- 4** So we can give you a “matched maturity selection” of three or more varieties for YOUR farm, no two of which will come into silk at exactly the same time.



*Silked During Favorable  
Weather.*

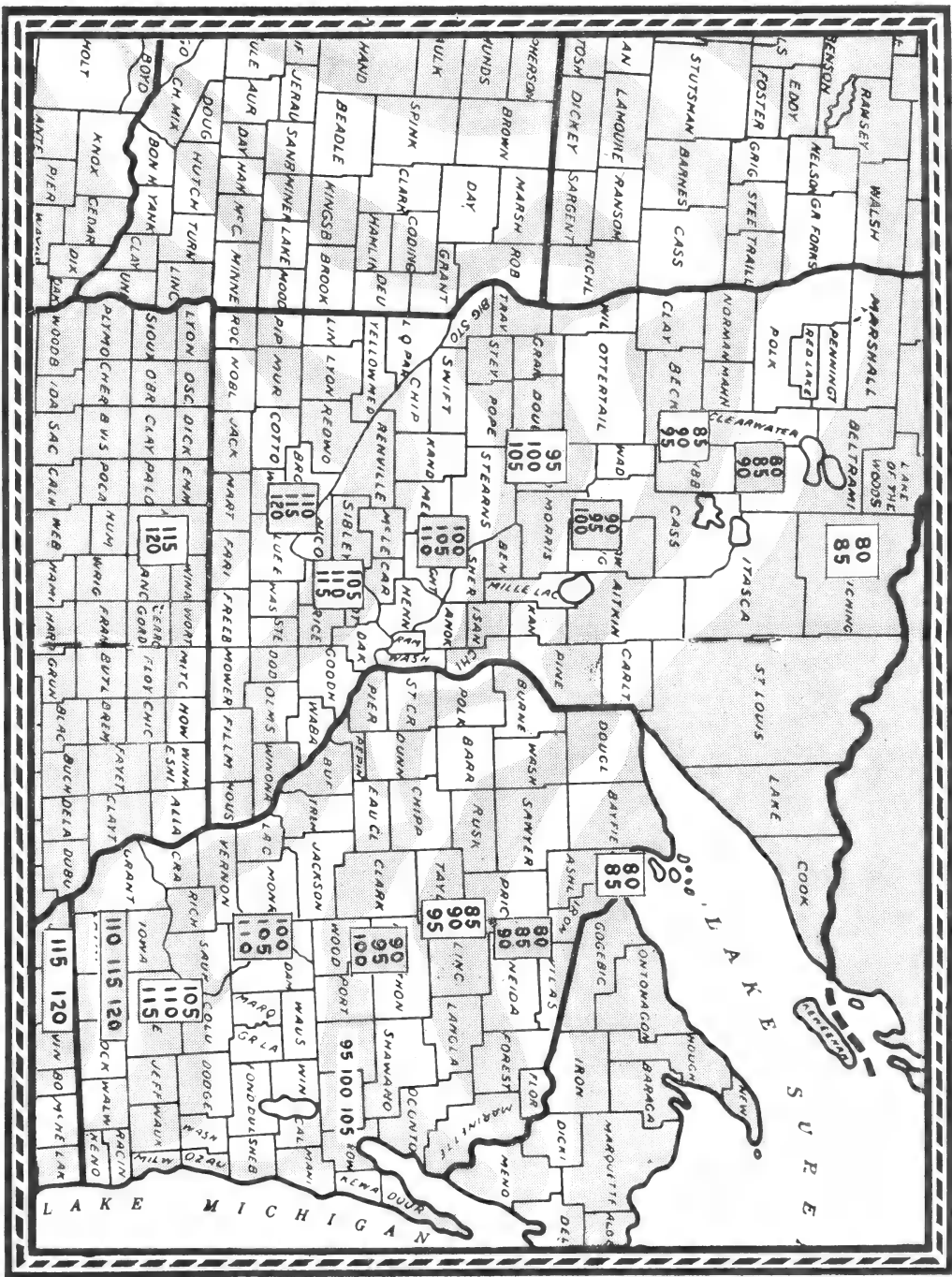


*Silked During Unfavorable  
Weather.*

- 5** This gives you “weather insurance”—because all of your corn doesn’t silk at the same time.

*See map on pages 20-21 for matched maturity selection for your locality.*



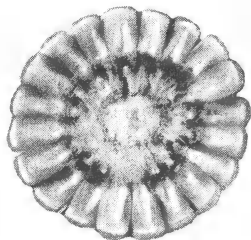
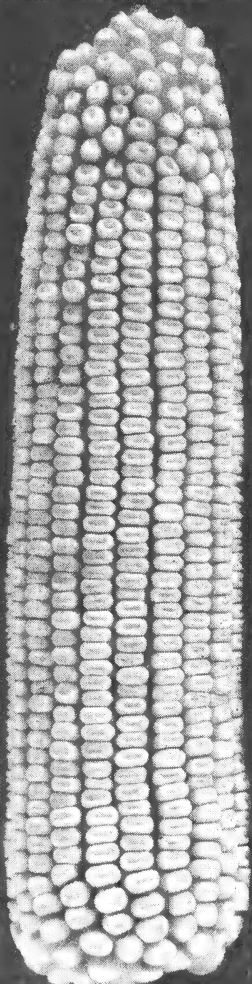


Map shows areas for which each Jacques Proven Hybrid Series is adapted. Numbers indicate maturity series recommended for zone in which they appear.

Prof. W. H. Co.—Map—Chicago.

WAYS TO PLANT GENUINE **Jacques** PROVEN HYBRIDS

# SERIES 120



## (Yellow Dent)

Here is a hybrid corn that germinates strong even in a cold spring; grows fast, ahead of the weeds; makes a big, leafy, sturdy stalk that stands up straight and strong through harvest, stays green even after ears are ripe; holds the ears on strong shanks; matures a sound, dry, well-dented ear with an amazing high-shelling percentage—and outyields Murdock open pollinated year in and year out!

STRAIN No. 1203J has just about everything that is desired of a hybrid in this maturity series. Ears are big and thick and well dented.

STRAIN No. 1205J is "Mr. Jacques' brand-new 'special'." The outstanding yielding ability of this hybrid, despite insects, disease and

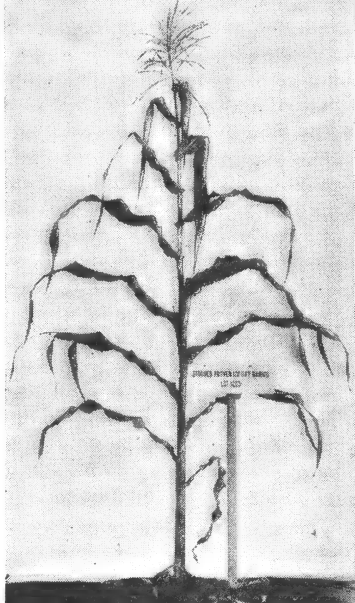




weather hazards, will win warm friendship for it among Southern Minnesota, Northern Iowa and Illinois farmers, especially.

**STRAIN No. 1206J** is another brand-new "special"—noteworthy for the very good-looking ear and very deep kernels. It combines four inbreds of truly exceptional yielding ability.

**STRAIN No. 1204** is a brand-new one combining two outstanding old inbreds with two outstanding new ones.



**NOTE:** New improved "J" strains are produced under rigid State Supervision but cannot be blue-tagged for adaptation until they have been in the State Tests for two more years.

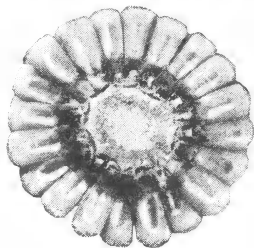
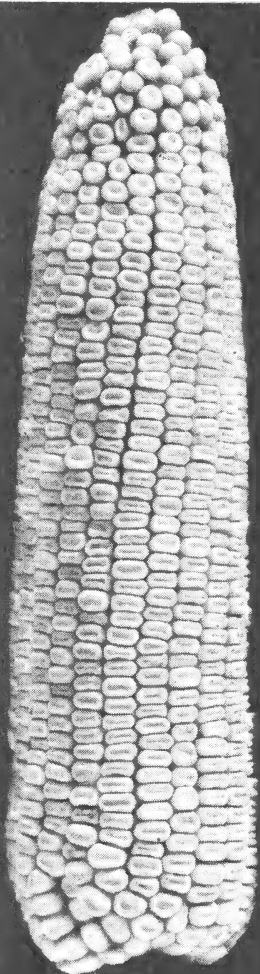
*"This is my fourth crop of Jacques Proven Hybrid. I am well pleased with its sturdy stalks, high shelling percentage, dryness, feeding quality, and the ease with which it can be harvested."*—L. M. Blunt, Rockford, Iowa.

**Comparison of JACQUES PROVEN HYBRID (120 Series) with Open Pollinated Variety in Test Plots, 1932-1940, inclusive.**

GRAIN YIELD IN PERCENTAGE	
MURDOCK Open Pollinated	Relative Maturity 115-120
JACQUES PROVEN HYBRID 120 Series	36.3% INCREASE
SILAGE YIELD IN TONS PER ACRE	
MURDOCK Open Pollinated	12.7 Tons
JACQUES PROVEN HYBRID 120 Series	16.7 Tons

**PROVEN HYBRIDS!**

# SERIES 115



(Yellow Dent)

A hybrid with a chest full of championship records in yield trials and contests! Frequently yields over 100 bushels per acre, and also is a fine silage corn, because of its great leafiness and the way it matures the ears while stalks are still green. The shelling percentage of this corn is simply amazing, and feeders particularly like the rough, starchy kernels and small cobs.

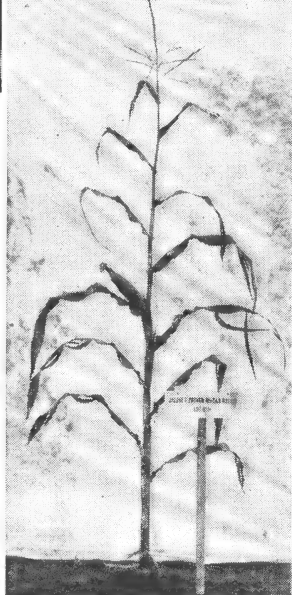
STRAIN No. 1151 makes the kind of ear that many farmers consider ideal — with deep, broad kernels and very small cob. It has a wonderful record over a wide area.



**STRAIN No. 1155J** is Jacques' challenge to the insect and weather hazards of West of the Mississippi territory. It is a brand-new Jacques introduction this year and has an outstanding record in tests in Minnesota and Northern Iowa.

**STRAIN No. 1154** is a very leafy, showy corn, a newer strain with an excellent test record.

**NOTE:** New improved "J" strains are produced under rigid State Supervision but cannot be blue-tagged for adaptation until they have been in the State Tests for two more years.



*"My Jacques Proven Hybrid 115 Series is the best yielding corn I ever planted. The shelling percentage is very high."*—Alfred Rogness, Hills, Minn.

*"I am more than pleased with my Jacques Proven Hybrid. My fields will get nothing but Jacques seed from now on."*—Kenneth Adams, Mankato, Minn.

*"We have three other hybrids on our farms, but our Jacques Proven Hybrid has beat them all for standability, evenness of ears, and drought resistance."*—McCarty Bros., Larchwood, Iowa.

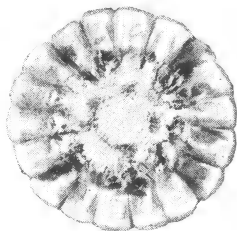
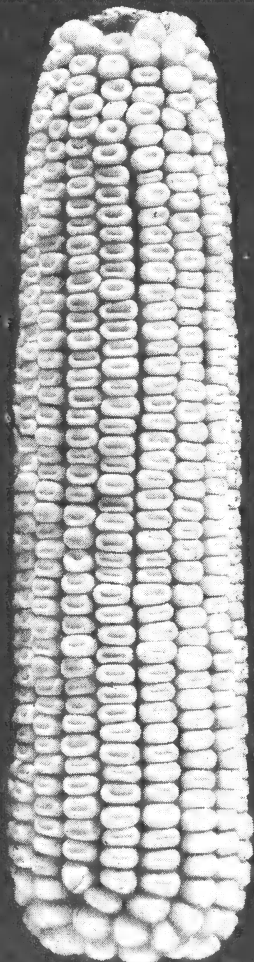
**Comparison of JACQUES PROVEN HYBRID (115 Series) with Open Pollinated Variety in Test Plots, 1932-1940, inclusive.**

GRAIN YIELD IN PERCENTAGE	
MURDOCK Open Pollinated	Relative Maturity 115-120
JACQUES PROVEN HYBRID 115 Series	27.3% INCREASE
SILAGE YIELD IN TONS PER ACRE	
MURDOCK Open Pollinated	12.7 Tons
JACQUES PROVEN HYBRID 115 Series	15.9 Tons



**PROVEN HYBRIDS**

# SERIES 110



## (Yellow Dent)

The corn that has put hundreds of extra dollars in the pockets of northern corn farmers. The strong-standing, wind-proof stalks, the great leafiness, the vigorous growth and early maturity are only the forerunners of your satisfaction. For the yield out of the crib is even greater than the yield you measure out of the field. The ears are so sound and dry, many farmers have sealed them right out of the field, and the deep, close-packed kernels make a heavy ear with an amazing high-shelling percentage!

STRAIN No. 1102J is a Jacques improved cross especially bred for the drier conditions prevailing West of the Mississippi. It is uniform as to plant and ear type throughout the field and is a splendid, rugged, long-eared corn.

STRAIN No. 1103 is a very showy corn, particularly liked for the beautiful, high-yielding ear type as well as its exceptionally good standability.

STRAIN No. 1104J is a Jacques improved hybrid, one of the very best and very classy looking

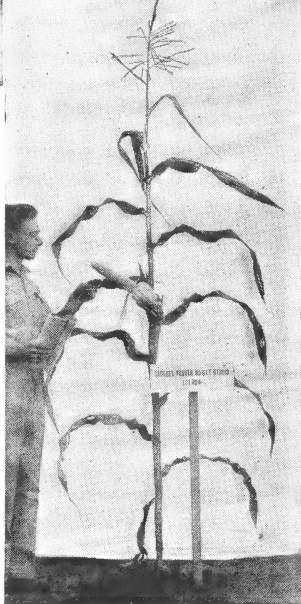
# Jacques

in the field—has a heavy stalk and leaf—is exceptionally lodge-resistant. The beautiful ears are so closely coupled on the stalk, and are so well packed with deep kernels, you get even more corn than you guess you have when you look at your field.

**STRAIN No. 1107** makes a somewhat longer, slenderer ear than 1104, not so closely coupled. The sturdy stalk is a regular "fence post." This is the second year we have produced this corn for sale and it has gained a fine acceptance.

**STRAIN No. 1108J** is a brand-new Jacques introduction, a splendid yielding corn for Western Minnesota, quite resistant to insects and adverse weather. Only a small quantity of seed is available, so get your order for this one in early!

**NOTE:** New improved "J" strains are produced under rigid State Supervision but cannot be blue-tagged for adaptation until they have been in the State Tests for two more years.



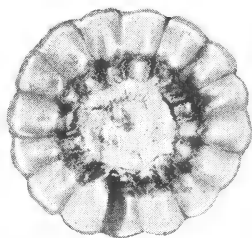
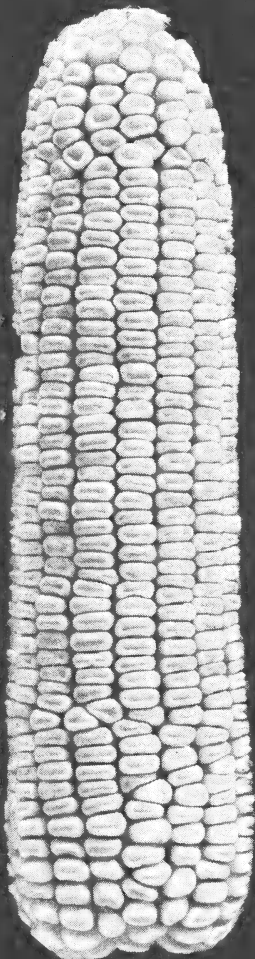
"My Jacques Proven Hybrid corn was subjected to a miniature cyclone this summer. Today it is up straight as before, and I will have a good corn crop."—Chas. Voseka, Olivia, Minn.

"I have grown Jacques Proven Hybrid for four years and it has had a lot to do with my success on the farm. This year it looks better than ever."—Henry Wilson, Hayfield, Minn.

**Comparison of JACQUES PROVEN HYBRID (110 Series) with Open Pollinated Variety in Test Plots, 1932-1940, inclusive.**

GRAIN YIELD IN PERCENTAGE	
GOLDEN GLOW Open Pollinated	Relative Maturity 110
JACQUES PROVEN HYBRID 110 Series	22.5% INCREASE
SILAGE YIELD IN TONS PER ACRE	
GOLDEN GLOW Open Pollinated	11.7 Tons
JACQUES PROVEN HYBRID 110 Series	13.7 Tons

# SERIES 105



(Yellow Dent)

So popular is this corn, the demand for it has grown by leaps and bounds ever since its introduction. Our customers are greatly pleased with the way this corn stands up, holds the ears, and produces a heavy crop of plump, broad-kernelled ears, sound and dry at harvest. A field of it is a beautiful sight! In tests it has outyielded a much later corn by nearly 15%!

STRAIN No. 1050J is a Jacques improved hybrid that makes a tall, leafy, husky plant with big ears, wide and thick kernelled.

STRAIN No. 1051 differs by one inbred from the





above. It is somewhat deeper-kernelled, and plumper, shorter-eared. Ears are compact and densely packed.

**NOTE:** New improved "J" strains are produced under rigid State Supervision but cannot be blue-tagged for adaptation until they have been in the State Tests for two more years.

*"Had no success with hybrid until I planted Jacques Proven Hybrid 105 Series. My field planted May 22 was silked out and 8 feet high on July 24."*

*—Chas. DeBeir, Lyndon Station, Wis.*

*"I'll put my Jacques Proven Hybrid 105 Series up against any corn in South Dakota. I tried several other hybrids—my only regret is that I didn't discover Jacques sooner."*

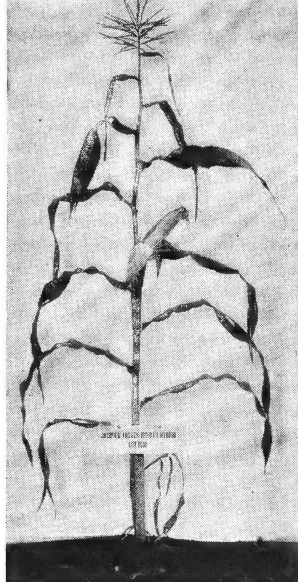
*Chas. Reimers, Toronto, S. D.*

*"I planted 3 bushels of Jacques Proven Hybrid 105 Series, and I have not seen as good a field anywhere in this community."*

*—Geo. Miley, Eau Claire, Wis.*

*"I have three boys operating farms, with 1,200 acres of corn, every acre planted with Jacques Proven Hybrid and if anyone in this neighborhood has better corn, I would like to see it. I have grown Jacques for three years."*

*—P. J. Hynes, Rosemont, Minn.*



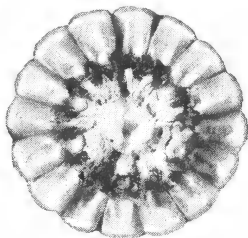
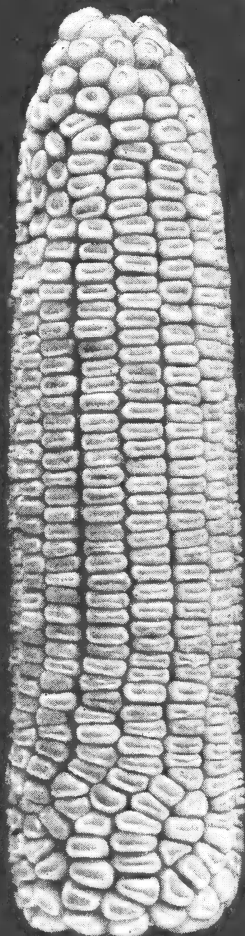
**Comparison of JACQUES PROVEN Hybrid (105 Series) with Open Pollinated Variety in Test Plots, 1932-1940, inclusive.**

GRAIN YIELD IN PERCENTAGE	
GOLDEN GLOW Open Pollinated	Relative Maturity 110
JACQUES PROVEN HYBRID 105 Series	14.9% INCREASE (Relative Maturity 105)
SILAGE YIELD IN TONS PER ACRE	
GOLDEN GLOW Open Pollinated	11.7 Tons
JACQUES PROVEN HYBRID 105 Series	12.4 Tons



**PROVEN HYBRIDS**

# SERIES 100



## (Yellow Dent)

You'll especially like the way this hardy corn stands up, grows a big, leafy plant, and matures a fat, sound ear with large, broad kernels. It's a tremendous yielder — a corn that is "making history" throughout the 100 Series Zone.

STRAIN No. 1001J is a Jacques improved hybrid with a wonderful record of performance. It has exceptional kernel depth for its maturity and the kernels are also large and broad and fill out clear over the tip.

STRAIN No. 1003J is another Jacques improved hybrid. It is a taller plant but extremely sturdy, combining an outstanding early

# Jacques





inbred cross with an outstanding later cross. Ears are higher and more tapering than 1001J.

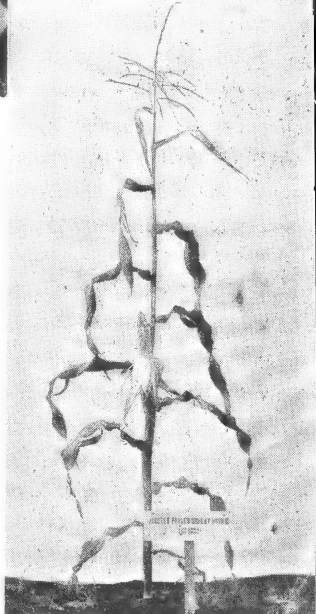
**NOTE:** New improved "J" strains are produced under rigid State Supervision but cannot be blue-tagged for adaptation until they have been in the State Tests for two more years.

"I have used Jacques Proven Hybrids for years and am entirely satisfied with it."—C. H. Imig, Rudolph, Wis.

"I have planted Jacques Proven Hybrid for four years. While I have planted many different kinds of corn, I have decided to plant nothing but Jacques. I have compared the shelling quality over other corn, and have always found a lot more corn because the kernels are deeper and the rows are closer together. My neighbors for many miles around have come over to see my Jacques corn."—Herb Claude, Sauk Center, Minn.

"I have raised Jacques Proven Hybrid for the last four years and I would not know where to buy better corn. Because of its dryness, my Jacques corn brought me an extra premium."—Conrad Clementson, Zumbrota, Minn.

"I raised four different hybrids last year. If it had not been for my Jacques Proven Hybrid, I would not have had corn to feed this summer. I planted 43 bushels this year, and it looks very good."—Alex Empy, Farmington, Minn.

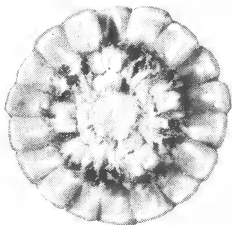
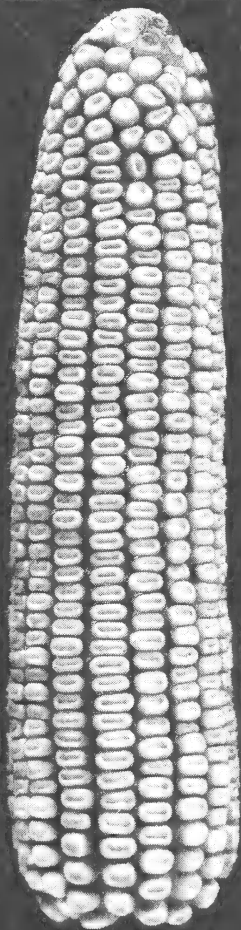


**Comparison of JACQUES PROVEN HYBRID (100 Series) with Open Pollinated Variety in Test Plots, 1932-1940, inclusive.**

GRAIN YIELD IN PERCENTAGE	
WISCONSIN 8 (Standard Minn 13) Open Pollinated	Relative Maturity 100
JACQUES PROVEN HYBRID 100 Series	14.2% INCREASE
SILAGE YIELD IN TONS PER ACRE	
WISCONSIN 8 (Standard Minn 13) Open Pollinated	8.2 Tons
JACQUES PROVEN HYBRID 100 Series	9.7 Tons



# SERIES 95

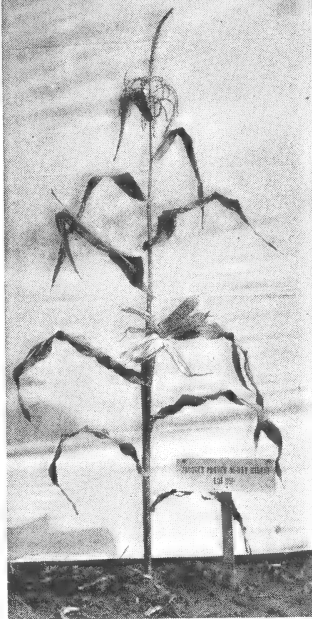


(Yellow Dent)

The hybrid that has moved the corn belt hundreds of miles north! Splendid yielding corn, hardy, vigorous, fast-growing with sturdy, upstanding, leafy stalk and excellent showy ear type.

STRAIN No. 956 (formerly numbered 902) is an early 95, one of the very best yielders, has a good, strong stalk and a rough dented kernel.

STRAIN No. 951J is a Jacques improved strain truly noteworthy for its great uniformity of plant and ear type. Typically it makes a big cylindrical 8" ear with kernels clear over the tip and yields like a later corn! Its heavy stalk and leaf make it a good choice for silage, too, in the early territory.



**STRAIN No. 955J** is a Jacques improved hybrid widely adapted to West of the Mississippi territory. It makes a very showy, well-dented, uniform ear and an attractive, heavy, leafy stalk. It has splendid yielding ability.

**NOTE:** New improved "J" strains are produced under rigid State Supervision but cannot be blue-tagged for adaptation until they have been in the State Tests for two more years.

*"If you want to see a real corn field, come see my Jacques Proven Hybrid 95 Series."*—F. Schnur, Centuria, Wis.

*"My Jacques Proven Hybrid 95 Series is one of the best fields of corn I ever had—and I have fields from three other hybrids on my place."*—John Alme, Mondovi, Wis.

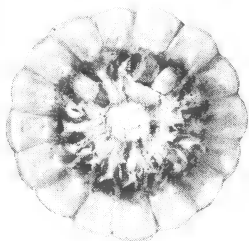
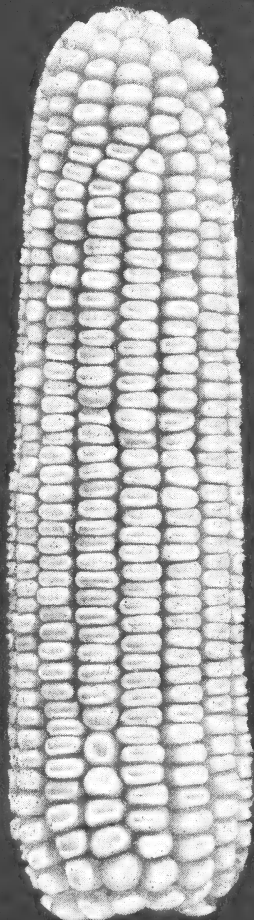
*"I have raised several varieties of Jacques Proven Hybrids for six years, and have not found a better corn. My neighbors have been so impressed with Jacques corn that a large percentage of the farmers here now raise no other kind except Jacques, and we raise lots of corn here, from two to three hundred acres per farmer. I especially like the standability and the high shelling percentage of Jacques Proven Hybrid. On my own 300 acres of corn, I have planted Jacques varieties all the way from the 85 Series through the 110 Series, and it is all good."*—Julius Sperr, Donnelly, Minn.

**Comparison of JACQUES PROVEN HYBRID (95 Series) with Open Pollinated Variety in Test Plots, 1932-1940, inclusive.**

GRAIN YIELD IN PERCENTAGE	
EARLY MINN 13 Open Pollinated	Relative Maturity 90
JACQUES PROVEN HYBRID 95 Series	39.2% INCREASE
SILAGE YIELD IN TONS PER ACRE	
JACQUES PROVEN HYBRID 95 Series	9.2 Tons

**PROVEN HYBRIDS!**

# SERIES 90



(Yellow Dent except 907)

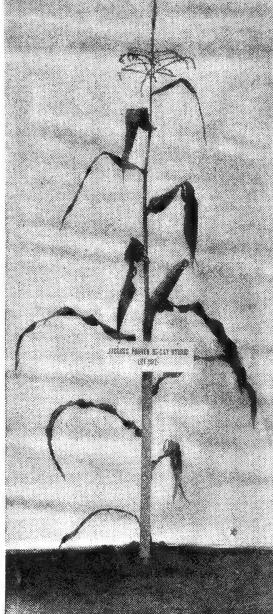
Has outyielded Early Minnesota No. 13 Open Pollinated corn by an average of 32% to 40% in tests extending over a period of years! Ears are very showy and stalks are sturdy and leafy.

STRAIN No. 906 (formerly numbered 850), is a leafy, sturdy, deep-kernelled hybrid with a high average performance over several years.

STRAIN No. 904 differs from 906 in that one newer inbred has been substituted—it has thicker ears and a somewhat showier stalk.



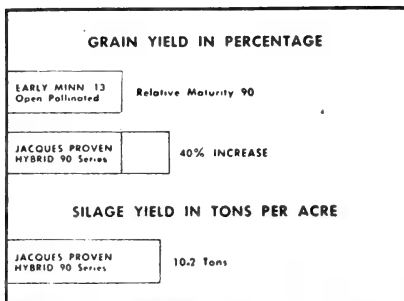
**STRAIN No. 907** combines two early yellow dent inbreds with two red Northwestern Dent inbreds. This new, heavy-yielding hybrid has very attractive red kernels. It has shown up unusually well in northern test fields and is **ESPECIALLY** recommended as a silage strain for northernmost regions.



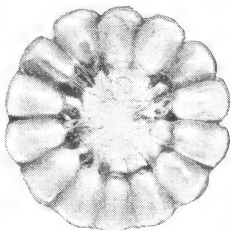
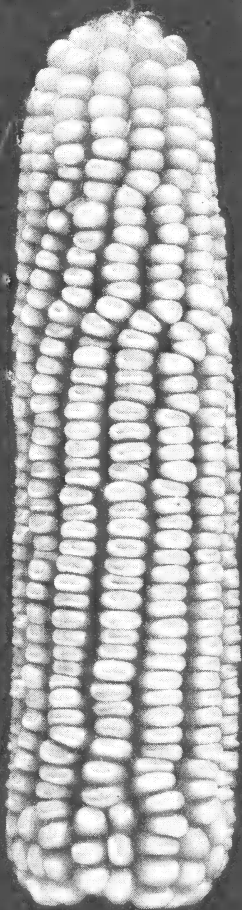
*"I have planted Jacques Proven Hybrid for the last two years and of all the hybrid corn I have seen, I will take Jacques. Neighbors for miles around have complimented me on my corn. I especially like the standability and the high shelling percentage."*—Albert Walberg, Colfax, N. D.

*"For the past four years my Jacques Proven Hybrid has given me fifty bushels or more to the acre of good ripe corn."*—Fred Walthers, Clear Lake, Wis.

**Comparison of JACQUES PROVEN HYBRID (90 Series) with Open Pollinated Variety in Test Plots, 1932-1940, inclusive.**



# SERIES 85



**(Yellow Dent)  
85 SERIES**

Outyields other corns that are 5 to 10 days later, and has more leaf and stalk! Very sturdy stalks and uniform early maturity. Showy ears of splendid quality. There are two strains, quite similar.

STRAIN No. 852 (formerly numbered 800) has proved its wide adaptability and dependability for several years and has a truly amazing performance record.

STRAIN No. 853 (formerly numbered 801) is a newer strain that grows a little taller and has somewhat longer ear shanks. It is liked by every one who has planted it!



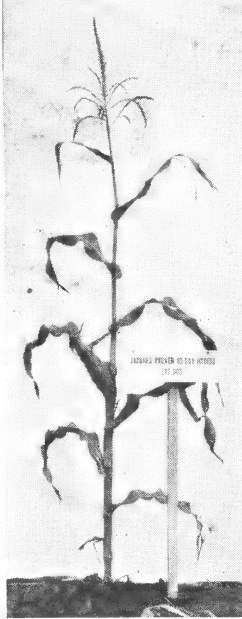
**(Yellow Dent)  
80 SERIES**

There is just one strain in this maturity, No. 802. It is brand new and it is the earliest field dent hybrid ever developed. Outyields both flint and early dent open pollinated varieties, has a taller, leafier stalk and is much more uniform.

*"I weighed the ears from my field of Jacques Proven 85 Series Hybrid. I had an average of 2 lbs. of corn to the hill!"—Peterson, Quamba, Minn.*

*"Tested side by side with two other hybrids, my Jacques Proven Hybrid corn proved to be the outstanding one, both for earliness and productivity."—Oscar Ostrom, Clear Lake, Wis.*

*"Six acres of Jacques 85 Series made 1,800 shocks, averaging 3/4 bushel! A story about my amazing crop was published in the Olean New York Times Herald."—C. C. Baum, Port Allegany, Pa.*



**Comparison of  
JACQUES  
PROVEN  
HYBRID (85  
Series) with  
Open Pollinated  
Variety in Test  
Plots, 1932-1940,  
inclusive.**

37

GRAIN YIELD IN PERCENTAGE	
WISCONSIN 25 Open Pollinated	Relative Maturity 85
JACQUES PROVEN HYBRID 85 Series	36% INCREASE
SILAGE YIELD IN TONS PER ACRE	
WISCONSIN 25 Open Pollinated	7.6 Tons
JACQUES PROVEN HYBRID 85 Series	8.8 Tons



# Kow Salad

I was the "Kow with the  
Krumpled Horn"  
Milked by the Maiden, so forlorn  
She milked me dry — I almost  
died  
From hunger—till one day I tried  
Kow Salad! Now I'm fat and  
hale  
And every day I fill her pail!



For the man who  
plants his corn for  
silage, here is a new idea with  
many advantages! Mr. Jacques  
has scientifically blended var-

ious maturities and strains of the Jacques Proven  
Hybrids so that this silo corn—

1. Has the right proportion of well matured stalks and ears to give the silage rich food value and high palatability;
2. Has the right proportion of succulent stalks and leaves to properly cure the blend;
3. Has the right proportion of tender green leaves to carry the vitamin factors that make silage an effective substitute for green pasture;
4. Has the right blend of tall, leafy corns to produce a heavy tonnage per acre;
5. Stands up straight and strong—it's almost a pleasure to cut it with your binder and to run it through your silage cutter;
6. Stays in right condition for cutting over a long period;
7. Provides maximum insurance against spells of adverse weather, since there is enough variation in maturity so that only a part of the crop reaches a critical period of growth at any one time;
8. Is priced so low that it gives you a very substantial saving in seed cost.

"Kow Salad" is composed entirely of the thick or round kernels. It is so uniformly graded that it is easily drilled or checked.

It is sold only in 2-bushel bags (just the right amount for the average silo).

It is available in a Maturity Blend especially for your locality.



# Better Grain Yields

WITH NEW IMPROVED

# CERESAN

REG. U. S. PAT. OFF.



## ALL THESE ADVANTAGES

- Recommended by most agricultural authorities.
- Generally controls certain smuts and some other seed-borne diseases.
- Usually improves stands, yields and quality.
- Double action—*vapor* generally controls certain seed-borne diseases, *film* protects against some soil-borne diseases.
- Only ½ ounce needed per bushel of grain or flax.
- Costs little per bushel or acre.
- One disinfectant for treating seeds of 7 crops.
- Cured seed may be treated when convenient. Store in dry, well-ventilated place.

# ONE seed disinfectant

"Treating seed grain for the control of certain smuts and other diseases is a standard recommended practice. It provides good insurance against losses from certain diseases, and, unless the grower is sure that his seed is not contaminated, treatment should be given to all seed wheat, oats, barley, . . .," says the U. S. D. A.

## DOUBLE IN ACTION

*New Improved Ceresan* usually destroys seed-borne diseases either by direct contact with the spores (germs), or by forming a vapor which penetrates every crack and cranny of the seed. It also aids in protecting the seed against certain soil-borne organisms.

## IMPROVES STANDS & YIELDS

*New Improved Ceresan*, by generally controlling certain seed- and soil-borne diseases, frequently improves stands and increases yields from 6 to 18%—adding a real profit to your crop.

## COSTS ONLY A FEW CENTS AN ACRE

*New Improved Ceresan*, in the pound size, costs but 2½¢ to treat a bushel of seed grain or flax—a quart or two of seed pays for the disinfectant for an acre.

## TREAT WHEN CONVENIENT

*New Improved Ceresan* can be applied as directed to well-cured seed 6 to 8 months before planting (except sorghums, 2 to 4 weeks) and stored in a dry, well-ventilated place.

## SAFE TO SEED AND DRILL

*New Improved Ceresan* does not injure seed when used according to directions. It is so smooth that it does not reduce the planting rate, nor cause drill breakage. There is little flying dust during planting.

## EASY TO APPLY

*New Improved Ceresan* may be easily and quickly applied to seed by a home-made gravity or rotary treater, by the shovel method, or by a commercial machine. Custom treaters in many sections will treat seed quickly and efficiently at small cost. Use a dry filter dust mask or clean dry cloth over the nose and mouth, as *New Improved Ceresan* is poisonous to inhale.

ectant

tain smuts  
ended prac-  
es from cer-  
ure that his  
ld be given  
U. S. D. A.



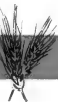
## WHEAT

*New Improved Ceresan usually controls seed-borne stinking smut, but not loose smut. It reduces losses from seedling blight and root-rot.*



## OATS

*New Improved Ceresan usually controls both loose and covered smuts of oats. Losses in yield from these diseases often run from 5 to 50%.*



## BARLEY

*New Improved Ceresan usually controls seed-borne stripe disease, covered and black (not brown) loose smuts, and reduces seedling blights.*



## RYE

*New Improved Ceresan usually controls stinking and stem smuts, and reduces scab seedling blight of rye. It often improves yields.*



## SORGHUMS

*New Improved Ceresan usually controls both loose and covered kernel smuts. It frequently improves stands and increases yields.*



## MILLETS

*New Improved Ceresan usually controls smut of foxtail millet and proso (hog or broomcorn millets). 1/2 ounce is used per bushel of seed.*



## FLAX

*New Improved Ceresan usually reduces damping-off and seed decay of flax. In Iowa tests it increased yields 24%.*

Treat Seed  
every year—

**IT PAYS!**

You cannot tell by looking at seed whether it carries disease organisms which will reduce yields and profits. That is why experts say, "Treat seed every year—*It pays.*" For instance, New York Experiment Station says, of New Improved Ceresan, "When applied to smutted or otherwise diseased grain, the gain in yield over untreated seed repaid the cost of treatment many times over." The Greater North Dakota Association says, "All seed should be treated with Ceresan to give the young plant all possible protection from root rots thus giving it a fair start in life as well as protection against bunt." Seed treatment is low-cost insurance against many disease losses. *New Improved Ceresan*, through generally controlling certain diseases, usually increases yields and improves quality. Protect seed every year with *New Improved Ceresan*.

### **New Improved CERESAN Prices**

*Subject to change*

4-oz. can. . . . .	\$ .30	5-lb. can. . . . .	\$ 3.40
1-lb. can. . . . .	.80	25-lb. pail. . . .	15.00
100-lb. drum. . . . .	\$55.00		

1/2 Ounce Treats 1 Bushel of Grain, Millets and Flax

Available from dealers in agricultural supplies. *New Improved Ceresan* is poisonous, and instructions and precautions with all packages must be observed.

**BAYER-SEMESAN COMPANY**

Incorporated

**Nemours Building      Wilmington, Delaware**

*For Sale By*

**DAKOTA IMPROVED SEED CO.**

**MITCHELL, S. DAK.**

**EMMETSBURG, IOWA**



*Continues to*  
**LEAD THE FIELD**  
**AFTER 72 YEARS**



SAVES SEED • BROADCASTS EVENLY

*the*  
**CYCLONE**  
*Seed Sower*

Cyclone \$2.75 ea. Postpaid

Horn \$1.00 ea. Postpaid

For Sale By

**DAKOTA IMPROVED SEED CO.**

MITCHELL, S. D. — EMMETSBURG, IOWA

# The Cyclone

## Seed Sower

BROADCASTS EVENLY — SAVES SEED



Uneven seeding is wasteful. The Cyclone will sow many acres per hour, any amount per acre.

Does the work quickly and

### Saves Labor

Many hundred thousand farmers in Canada, America, Europe

and other countries have relied on it for sowing clover, timothy, alfalfa, lespedeza, sudan grass, oats wheat or any other seed that is sown broadcast.

**CONSTRUCTION**—Its well known Double Feed insures a uniform flow of seed. Sloped Feed Board keeps hopper properly filled. Feed adjustment is automatic and starts or stops flow of seed instantly. Distributing Wheel scatters seed evenly—Throws equal amounts to equal distances on each side of operator.

## THE SECTIONAL TUBE STYLE "HORN" SEED SOWER WITH PATENTED BRASS SEED GAUGE

Tube is made in three sections or joints. They assemble like a stove pipe, not like a telescope. Sows perfectly all smooth seeds like alfalfa, clover, timothy lespedeza, etc., any desired amount per acre. You can rely on this seed gauge.

### GUARANTEED

—Easily operated—



2..

FOR PRICES SEE REVERSE SIDE

Would You Pay 9/10¢ an Acre

for a better

**CORN CROP**



# SEMESAN JR.

REG. U.S. PAT. OFF.

Iowa reports, in their nine years' tests of seed corn disinfectants, an average annual gain from seed treatment of four bushels per acre. Illinois reports an average annual increase in yield of two bushels per acre from the better mercurial seed disinfectants tested during the years 1926 to 1940, incl. Seed corn treatment usually pays!



# The Cyclone

## Seed Sower

BROADCASTS EVENLY — SAVES SEED



Uneven seeding is wasteful. The Cyclone will sow many acres per hour, any amount per acre.

Does the work quickly and

**Saves Labor**

Many hundred thousand farmers in Canada, America, Europe

and other countries have relied on it for sowing clover, timothy, alfalfa, lespedeza, sudan grass, oats wheat or any other seed that is sown broadcast.

**CONSTRUCTION**—Its well known Double Feed insures a uniform flow of seed. Sloped Feed Board keeps hopper properly filled. Feed adjustment is automatic and starts or stops flow of seed instantly. Distributing Wheel scatters seed evenly—Throws equal amounts to equal distances on each side of operator.

### THE SECTIONAL TUBE STYLE

## "HORN" SEED SOWER

### WITH PATENTED BRASS SEED GAUGE

Tube is made in three sections or joints. They assemble like a stove pipe, not like a telescope. Sows perfectly all smooth seeds like alfalfa, clover, timothy lespedeza, etc., any desired amount per acre. You can rely on this seed gauge.

**GUARANTEED**

—Easily operated—




2..

**FOR PRICES SEE REVERSE SIDE**




# EVERYTHING YOU WANT IN A SEED CORN TREATMENT


Semesan Jr. is a dry, double-acting disinfectant for treating hybrid or open-pollinated FIELD, SWEET or POP corn seed. It usually reduces harmful seed-borne fungi such as *Diplodia*, *Gibberella* and several others, also, seedling blights caused by these diseases, and seed rotting. It generally improves stands, vigor of the seedlings, and increases yields—an actual average of about 3 bushels per acre as proved by years of tests in Illinois and Iowa. Semesan Jr. usually pays!




**"INSURE" YOUR YIELDS**—One step towards insuring yields of corn against many seedling diseases and seed rotting is to give the seed a protective coat of Semesan Jr. before planting.




**MAKES EARLY PLANTING SAFER**—This low-cost treatment usually kills most harmful organisms on the seed and helps protect it from decay caused by certain soil-borne organisms. It may save re-planting during a cold, wet spring.



**PROVED EFFECTIVE**—Semesan Jr. has been proved effective by the principal Corn Belt experiment stations. Iowa says of corn disinfection, "The value of the gain in yield over a period of years will far exceed the cost of treatment."




**TREAT WHEN CONVENIENT**—Dry seed, with less than 14% moisture content, may be safely treated with Semesan Jr., as directed, any convenient time prior to planting. Store treated seed in a well-ventilated, dry place.




**SMOOTH, NON-CLOGGING COAT**—Semesan Jr. is a smooth, fine powder that is easily distributed over the seed to form a thorough coating which adheres tenaciously to the seed. The powder does not bridge in the treater magazine, nor cause clogging in the planter.


**DOUBLE IN ACTION**  
**IMMEDIATELY EFFECTIVE**—When Semesan Jr. is applied to seed corn, part of the active ingredient immediately starts slowly changing to a vapor. This vapor is highly effective in killing the germs and spores in every crack and cranny on the seed coat, but is relatively harmless to the seed itself.  
**LONG-LASTING PROTECTION**—Another part of the active ingredient dissolves and is adsorbed by the seed coat. It rapidly forms a film on the seed, protecting it against certain soil-borne organisms. This film cannot be removed by natural means.




**PRACTICALLY DUSTLESS**—Semesan Jr., when properly applied, makes a minimum of dust during the treating operation, and none during planting.



**SAFE ON SEED**—Semesan Jr., applied as directed, is harmless to seed. The Univ. of Illinois says, "... seed corn was not injured when the same rate of mercurial was applied one year before sowing as was applied when seed was treated and stored for one day!"

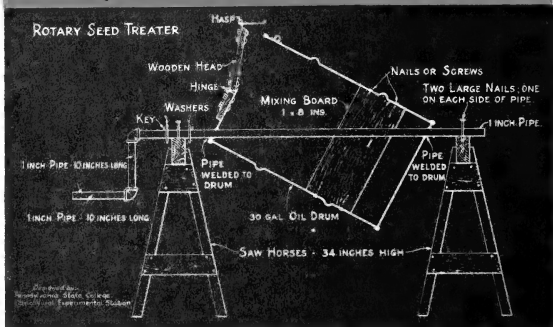


**LOW COST**—One pound of Semesan Jr. treats about 10.7 bushels of seed at a cost of 75¢—only  $\frac{1}{10}$ ¢ an acre! That is, for  $\frac{1}{10}$ ¢ you can raise, on the average, about 3 bushels more—a worth-while increase at a trivial cost.



**EASY TO APPLY**—Mix  $1\frac{1}{2}$  ounces of Semesan Jr. with each bushel of seed corn in a suitable container (see last page). For large quantities, use a power treater. Semesan Jr. is easily and quickly applied.

# INEXPENSIVE HOME-MADE TREATER!



This effective treater can be made from a 30-gallon oil drum, usually at a cost of from \$2 to \$5. Write for plans and treating chart.

## SEMESAN JR. PRICES

Subject to change

1½ oz. tube . . . . .	\$ .15	5 lb. can . . . . .	\$ 3.00
1 lb. can . . . . .	.75	25 lb. pail . . . . .	12.50
100 lb. drum . . . . .	\$45.00		

1½ ounces treat one bushel of seed

Semesan Jr. is poisonous, and instructions and precautions furnished with all packages must be observed.

**BAYER-SEMESAN COMPANY**  
 Incorporated

Nemours Building

Wilmington, Delaware

For Sale By

**DAKOTA IMPROVED SEED CO.**  
**MITCHELL, S. DAK.      EMMETSBURG, IOWA**

# A SOLUTION FOR YOUR GARDEN

## *Vita-Flor*

**MORE THAN  
VITAMIN B<sub>1</sub>**

**Stock solution**

**Easy to use**

**No refrigeration**

*Look for the "Red Spot"* →



**ALL VITAMIN B FACTORS  
FOR STRONG HEALTHY PLANTS**

# Vitamins Are Necessary for Plant

Recent experiments by university scientists indicate that other Vitamin factors produce added leaf, stem and root growth that cannot be obtained by the use of Vitamin B<sub>1</sub> alone.

**Vita-Flor** is a highly concentrated solution containing in addition to Vitamin B<sub>1</sub> other vitamin factors essential for normal, healthy plant life. It promotes root growth and helps most varieties of transplanted shrubs, trees and plants to re-establish themselves. Used regularly, it will produce a deep root system and a fine, healthy growth.

## No Fuss or Bother Mixing Tricky Solutions

Vita-Flor comes to you, ready to use, in a handy "eye-dropper" bottle. It is economical and easy to use. Just put two drops of Vita-Flor in a gallon of water and sprinkle around the roots of your plants. Vita-Flor soaks into the soil stimulating new root activity thereby enabling the plants to secure a more abundant food supply.

## Vita-Flor Is Not a Fertilizer

Plants treated with Vita-Flor cannot be expected to flourish unless the soil in which they are planted has had proper care. Use your regular

For Robust, Healthy Gard

## Plant Growth

Perhaps no other single discovery is more important to the home gardener than the fact that the addition of Vitamin B to many plant diets helps assure ample growth and an abundance of beautiful blossoms. Normally Vitamin B is manufactured by nature in the tips of plant leaves and transported to the roots. All plants have this ability to produce Vitamin B but some in quantities insufficient for their needs. By supplying an added quantity of Vitamin B directly to the roots, many plants can be made to take on renewed vigor. Roots become robust and sturdy, blossoms larger and more beautiful.

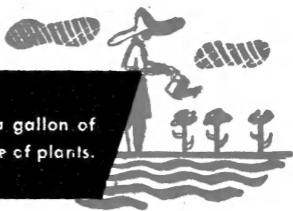
fertilizer and soil conditioner the same as always. Vita-Flor will help your plants consume food from the soil as a result of increased root growth.

### Remarkable Aid in Transplanting

Plants which lack a sufficient supply of Vitamin B are apt to suffer a terrific root-shock when they are removed from the soil. This is the ordinary cause of so many failures in transplanting. Now, with the proper Vita-Flor treatment, you can transplant your favorite flowers, plants, trees and shrubs with greater confidence of success. Vita-Flor supplies the factors so essential to the plant under stress of root-shock.

#### Easy to use —

Two drops of Vita-Flor to a gallon of water — sprinkle around base of plants.



Gardens, use **Vita-Flor**

Read what S. H. Whitehorn says  
about **Vita-Flor**

*Manager of Sierra Nursery and Seed Company,  
Fresno, California, Mr. Whitehorn writes:*

"Pansies transplanted in September from cold frame to flats had all been watered three successive weeks with Vita-Flor. The root systems were 3 to 4 times the size necessary to support top growth. It is interesting to note that in transplanting one flat we watered it with Vita-Flor and placed the flat in full sun, well over 90° and they showed no sign of wilt."

*Victor Reiter, Jr. 1195 Stanyan St.,  
San Francisco, writes:*

"In our experience the use of Vita-Flor greatly accelerated the lengthening of roots on cuttings (slips) and has shortened the time required to re-establish transplanted plants. Used on potted plants in our greenhouse we have noticed improved health and vigor with an increased rate of growth."

**Be sure you get  
genuine Vita-Flor**

Look for the attractive display  
at your dealer's. Vita-Flor is  
available in three sizes, small,  
medium, and large. Priced  
50c, \$1.00 and \$1.75



**GALEN COMPANY, INC.,**

**2148 Fourth St.,**

**Berkeley, Calif.**

*For Sale By*

# JACQUES EARLY MATURING, HIGH YIELDING STANDARD VARIETIES



Our old, reliable strains of standard varieties are a result of 30 years' experience in selecting seed ears from big, sturdy, healthy, high-yielding, early maturing, disease-resistant plants. They are tested in our trial fields each year, and the seed fields are inspected regularly by state inspectors for isolation, purity and vigor. Every bushel is State Sealed and Certified.

**JACQUES MINNESOTA NO. 13.** Our strain, grown in the latitude of St. Paul, is a real 100-Day corn, averaging a week earlier than standard Golden Glow. One of the best silo varieties for the North,

having strong, leafy stalk, good height, early maturity, good yield.

**JACQUES GOLDEN GLOW.** Golden Glow that ripens before frost, as our Northern-Grown strain does, gives you a ripe, sweet silage full of grain. This is fine silo corn for Central Wisconsin and Minnesota and fully matures in 100 to 105 days. The extremely heavy foliage with such early maturity is very unusual, especially when combined with heavy grain yield. This is an outstanding strain for this maturity.

**JACQUES WISCONSIN NO. 25.** The earliest yellow dent variety, maturing in 80 to 90 days. Matures almost any where the flints will, and outyields them both in quality and quantity. Our seed is grown from improved seed stock sent us each year from the University of Wisconsin Experimental Station.

**JACQUES SILVER KING (Wis. No. 7).** Ours is an early but very leafy and heavy-yielding strain developed by selection from stock originally obtained from Wisconsin Experiment Station. Carries large percentage of show ears, about 8 to 10 inches long, averaging 16 rows—an excellent silo corn for most of Wisconsin and Minnesota. Our 1941 crop is the best we have ever had.

**EXTRA EARLY NORTHWESTERN DENT.** This is the earliest dent we grow, much earlier than the Standard Northwestern Dent. Ears are red or bronze color, 8 to 10 inches long, averaging 12 rows. Recommended for North Minnesota and Wisconsin for husking or silage.

**MURDOCK.** This is truly a great corn in South Central Minnesota and Wisconsin. The foliage is extremely heavy, and the ear is large and very deepkerneled. Both for husking and fodder the yield is very high.

# Jacques

*Proven*  
HYBRID SEED CORN

*Comes Only  
in this  
Bag...*



Jacques Seed Co.,  
Prescott, Wisconsin

FOR SALE BY

*Distributors*

**DAKOTA IMPROVED SEED CO.**

MITCHELL, SO. DAK. - REDFIELD, SO. DAK.  
EMMETSBURG, IOWA