

TO DISTINGUISH COMMON GRASSES

Not Many of Wild Species Are Abundant or Valuable in Any One Locality.

TIMOTHY IS MOST IMPORTANT

It Grows All Over Northern Half of United States and South to Beginning of Cotton Belt—Details of Seeds.

(Prepared by the United States Department of Agriculture.)

Although there are probably 6,000 distinct species of grasses in the world, only about 60 of these are important cultivated plants. Not more than 20 wild species are abundant or valuable in any one locality. With an illustrated guide to help, one can easily learn to distinguish many of the grasses, both cultivated and wild. Elaborate instruments or detailed knowledge of structures of the grasses are unnecessary. To aid in making these distinctions, the United States Department of Agriculture has prepared a



A Load of Rhodes Grass, Baled and Ready for Shipment.

new farmer's bulletin, No. 1254, "Important Cultivated Grasses," by C. V. Piper, agronomist, in which 26 well-known grasses are described and illustrated.

Timothy Most Important.
Timothy is said to be the most important hay grass cultivated in America. It grows all over the northern half of the United States, and about as far south as the beginning of the cotton belt. Kentucky bluegrass, in spite of its name, is not a native of this country, but was undoubtedly brought over from the Old World by early colonists. In mixed grass seeds, and grew well in the new soil. Kentucky bluegrass is well known for the excellent lawns it makes, and for the highly nutritious pasturage it furnishes.

Details of Seed.
The bulletin gives the weight per bushel seeds of various grasses, number of seeds to a pound, and the usual rate of seeding to the acre. Redtop, Bermuda grass, Orchard grass, Carpet grass, Canada bluegrass, Napier grass, Rhodes grass, Para grass, several "fescues," and millets, rye-grasses, Sudan grass and others are described fully in the bulletin, and their principal uses indicated. The bulletin may be obtained upon application to the United States Department of Agriculture.

WAREHOUSE LAW IN EFFECT

Department of Agriculture Co-operating With Bankers in States in the Northwest

Efforts to put the United States warehouse act in effect on a large scale in the Northwest are being made by the United States Department of Agriculture in co-operation with the banks of that section. Grain warehousemen who were licensed under the act last year have indicated their intention of renewing their licenses this year, and it is expected that a number of other warehousemen will come into the system.

GREEN MANURE HELPS SOILS

Government Has Collected Much Valuable Information in Regard to Practice.

Many of the poorer soils can be improved by plowing under a green manure crop. The government has recently collected the available information in regard to the practice into a farmers' bulletin, No. 1250, on "Green Manuring," which may be obtained free on application to the United States Department of Agriculture, Washington, D. C. Every man interested in soil improvement ought to have a copy.

VENTILATION DURING SUMMER

Good Plan to Remove Windows From Houses and Substitute Muslin or Fine Meshed Wire.

In the summer time it is well to remove the windows from the poultry houses and substitute muslin-covered frames, or fine meshed wire. The wide mesh wire allows the entrance of sparrows and with sparrows come mites and often chickenpox. They are robbers of the mash box, and pests.

STARCHY EARED CORN SUSCEPTIBLE TO ROT

One of Most Useful Discoveries Recently Made.

Means Provided in Selecting Seed That May Do Away With Necessity of Testing Each Ear—How to Distinguish.

(Prepared by the United States Department of Agriculture.)

In the study of root, stalk, and ear rots of corn, one of the most useful discoveries that has been made is a very noticeable difference between starchy ears and horny ears in the frequency of infection and in the vigor of plants produced. These differences are discussed in Department Bulletin 1062, Relation of the Character of the Endosperm to the Susceptibility of Dent Corn to Root Rotting, by John F. Trost, assistant pathologist. The investigations were carried on jointly by the United States Department of Agriculture and Purdue university agricultural experiment station.

Ears of the dent varieties that have starchy kernels have been found to be infected with root-rot organisms more frequently than ears in the same seed lots that have horny kernels. This provides a means of selection that may help to do away with the necessity of testing every ear to determine whether from the standpoint of root-rot infection it is desirable to plant. Starchy kernels are easily distinguished from those with horny endosperms. The horny kernel is more or less translucent; that is, it lets the light pass through in the same way that oiled paper does. Starchy kernels are opaque—like a piece of chalk.

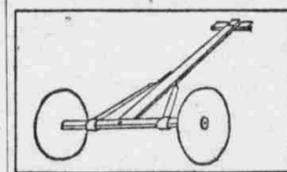
Starchy ears of dent varieties produce larger numbers of weaker growing plants, more susceptible to root rots in the field, than do ears of more horny composition.

There is an impression among corn growers that the depth of the dents is an indication of the starchiness of the kernels, but this has not been shown to be true. Chaffy kernels are usually very starchy, but starchiness is not necessarily associated with normally-matured ears that are rough. The bulletin may be obtained by addressing the department at Washington, D. C.

DEVICE AIDS BERRY GROWER

Rolling Cutter Makes It Easy to Keep Strawberry Plants Confined to Allotted Space.

This device will be found handy in keeping the strawberry bed in order through the summer season. It is a rolling cutter used to cut the runners which otherwise would spread out between the rows and set plants where they are not wanted, writes



Rolling Cutter for Berries.

D. R. Van Horn in the Nebraska Farm Journal. By running this cutter up and down the rows one can very easily keep the plants confined to the space desired. Such a device is made of two cutters from an old disk mounted on a homemade frame, as shown.

POISON SPRAY NOT HARMFUL

Heavy Coatings of Residue on Fruits and Vegetables Removed by Good Washing.

Poison sprays on fruits and vegetables will not be found by consumers in harmful quantities if growers who use them against pests and diseases follow the spraying schedule recommended by the United States Department of Agriculture. In some instances, because of heavy spraying or spraying late in the season, investigators for the department have found comparatively large quantities of spray residue on fruits and vegetables at harvest time, especially on products grown in dry climates. When heavy coatings of residue were found washing and wiping removed much of it, and peeling all of it.

Experiments along this line were undertaken by the department because of the possibility that spraying of fruits and vegetables might leave enough arsenic, lead, or copper on the surface to be injurious to the consumer. The results, obtained by analyzing sprayed fruits and vegetables from various parts of the country and presented mostly in the form of tables, are given in Department Bulletin 1027, Poisonous Metals on Sprayed Fruits and Vegetables. Copies may be obtained by addressing the department at Washington, D. C.

FIXING GRADES FOR MOHAIR

Federal Wool Specialists Are Making Careful Study of Output in Texas.

Investigations looking toward the establishment of grades for mohair are now being made by the United States Department of Agriculture. Federal wool specialists are making a careful survey of the various kinds of mohair produced in Texas.

DAIRY FACTS

BIG VALUE OF BETTER SIRES

Offspring of Scrub Cows Bred to Purebreds Show Great Increase in Milk and Fat.

That purebred sires in the grade dairy herd are worth while is shown in the results of 14 years of experiments at Iowa State college. In the first generation from the purebred dairy bulls used, production of milk in grade cows was increased 44 per cent and fat production 38 per cent. In the second generation an increase of 110 per cent in milk over the original production was secured and 101 per cent increase in butterfat. This increase would more than pay for the cost of a good sire and the farmer would have a better herd at the end besides.

This work, which is a continuation of an experiment started in 1907 with scrub Arkansas cows, has progressed into the second generation so far and results show conclusively the value of better sires.

The Arkansas scrubs under Iowa conditions had an average production of 4,000 pounds of milk and 187 pounds of fat. The next generation following, made up of the offspring of the scrub cows from purebred sires, had a production of 5,760 pounds of milk and 259 pounds of butterfat.

In the next generation, where purebred sires were again used on grade cows, a production of 8,413 pounds of milk and 376 pounds of butterfat resulted.

Holstein, Jersey and Guernsey bulls were used in this experiment. In the original matings of the scrub cows which were later bred to Jersey bulls they produced 4,047 pounds of milk and 194 pounds of butterfat. From the first generation of Jersey mating a production of 4,934 pounds of milk resulted and 205 pounds of butterfat. From the second Jersey mating 6,257 pounds of milk were produced and 320 pounds of butterfat.

Scrub cows later bred to purebred Guernsey bulls produced 4,306 pounds of milk and 196 pounds of butterfat. In a first mating with the Guernsey bulls 4,371 pounds of milk and 231 pounds of butterfat resulted. From



Half-Blood Holstein Which Had an Average Production of 6,384 Pounds of Milk and 304.6 Pounds of Butterfat.

the second mating a production of 7,271 pounds of milk and 370 pounds of butterfat were produced.

Scrub cows bred later on to purebred Holstein sires had a production of 3,688 pounds of milk and 175 pounds of butterfat. Following a Holstein cross the offspring produced 6,748 pounds of milk and 277 pounds of butterfat. The offspring of a second generation with Holstein sires produced 10,326 pounds of milk and 399 pounds of butterfat.

The scrub Holsteins returned 3,688 pounds of milk and 175 pounds of fat while the first generation of purebred siring showed a production of 6,748 pounds of milk and 277 pounds of butterfat. The second generation increased steadily and showed 10,326 pounds of milk and 399 pounds of butterfat.

All these cows were kept under the same environment and fed as nearly as possible standard rations and received careful handling so that the experiment was uniform.

PROPER FEED FOR DAIRY COW

Animal Should Have All Roughage She Will Clean Up—Proportion of Grain Mixture.

Under most circumstances, the cow should be fed all the roughage that she will eat up clean, adjusting the grain ration to the milk production. Only when the cow tends to become overfat should the quantity of roughage be restricted.

A grain mixture should be fed in the proportion of one pound to each three pints or pounds of milk produced daily by the cow, except in the case of a cow producing a flow of 40 pounds or more, when the ration can be one pound to each three and one-half or four pounds of milk. An even better rule is one pound of grain each day for every pound of butterfat produced during the week by the cow.

Feed all the cow will respond to in milk production. When she begins to put on flesh cut down the grain.

Sire Is Half of Herd.
The sire counts for half of the dairy herd. Remember this when you are buying a new head for your herd and don't be content with a scrub.

Water Needed by Cow.
A good milk-producing cow ought to have in the summer time at least 150 pounds of water a day, and in the winter time about 100 pounds.

Bring Small Returns.
Poor rations fed to poor cows are certain to keep the pocketbook thin.

Wild Cat in Hen Coop Is Killed After Battle

New London, Conn.—Capt. John Fish of Fishtown was aroused last night by the cackling of hens and with his dogs and a rifle the captain hastened to the coop and found in it a wildcat. He shot the animal, but did not seriously injure it. The dogs were sent after the intruder. The cat put up a lively fight, but was finally forced out of the coop and escaped to a nearby tree. Captain Fish took a shotgun and riddled the animal with buckshot until it fell to the ground. The cat weighed 60 pounds, the captain says.

SEIZE YOUTH AFTER MYSTERIOUS FIRES

Dismissed From College Following Unusual Blazes—Another Starts in His Home.

New York, N. Y.—The smoke of the mysterious fires at Trinity college in Hartford, Conn., has trailed George Mulligan all the way to his home in Bergenfield, N. J. After the seventh



Discovered Blaze in the Kitchen Closet.

fire at the college, Mulligan was arrested at the instance of the college authorities on the technical charge of a breach of the peace in \$1,000 bail and retired to Bergenfield for a rest.

Then there was a very queer fire in the Mulligan home. The family had retired. George, as if warned by a special sense, got up, went downstairs and discovered the blaze shut up in the kitchen closet. He aroused his father, James F. Mulligan, the tax collector, his mother and his brother Charles.

After the fire had been put out with the garden hose and the fire department, Fire Chief William Pape undertook to ascertain the cause of the fire. His pains were unavailing. There was a mystery there that simply stumped him. No fire went through the closet, no electric wires and there were no matches for mice to gnaw.

Chief of Police Coombs was equally nonplussed. The two officials took counsel together and reached the decision that the incident was hardly worth making a bother about. So there it is likely to end.

George enjoys the reputation in Bergenfield of being a pretty bright young man, studious and quiet. His father is confident he had nothing to do with the fire.

DEVICES TO TEST PLANES

Record Every Move of Pilot and Machine; Will Fix Man's Ability and Technique.

Washington.—Devices to check up on both airplanes and aviators while in flight, making possible a detailed record of every move the pilot made in controlling his machine, have been worked out by experts of the national advisory committee for aeronautics, it was announced.

Valuable scientific data is expected to be gathered through these records. A trio of recording devices makes up the system, the record being made on a photographic film.

"The results," the committee's statement said, "reveal for the first time a practical method of securing information in testing new types of airplanes and for determining the ability and technique of a pilot."

Wave Bathing Trunks at Ebert.

Munich.—Red bathing trunks waved by national socialists in the path of President Ebert's automobile in one section of the city formed the only incident of the visit of the president to Munich, except for occasional hissing along the streets as he passed.

The bathing-trunk episode was a play on a snapshot taken of the republic's chief executive and Gustav Noske, former secretary of war, at a seaside resort a year ago.

Had Your Iron Today?

The Delicious Bread —of Energy and Iron

SERVE raisin bread twice weekly on your table for three reasons:

1. Flavor; 2. Energy; 3. Iron

You remember how good a generously filled, full-fruited raisin bread can be. Your grocer or baker can supply a loaf like this. Insist—if he hasn't one he can get it for you. Full-fruited bread is full of luscious seeded Sun-Maid raisins—rich in energizing nutrient in practically predigested form. Raisins also furnish fatigue-resisting iron for the blood. Serve plain raisin bread at dinner or as a tasty fruited breakfast toast with coffee. Make delicious bread pudding with leftover slices. No need to waste a crumb of raisin bread. Begin this week the habit of raisin bread twice weekly in your home, for raisin bread is both good and good for you.

Sun-Maid Seeded Raisins

Make delicious bread, pies, puddings, cakes, etc. Ask your grocer for them. Send for free book of tested recipes.

Sun-Maid Raisin Ringers
Membership 13,000
Dept. N-35-9, Fresno, Calif.

Blue Package

for Economical Transportation

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f. o. b. Flint, Mich.

A Thousand a Day Now Buy Chevrolet

The New Superior Chevrolet is the most satisfactory low priced, fully equipped, most economically operated automobile in the world today.

This year's motor car buyers have recognized this fact to such an extent that 1922 has seen Chevrolet become the largest producer of high-grade automobiles in the world.

The New Superior Chevrolet has many improved features. It has a new front axle assembly, a new rear axle assembly including spiral spring and pinion gears. The clutch has been improved. In addition to its service brake, a hand-lever emergency brake has been provided. The front and rear springs have been re-graded to give easier riding.

With such improvements the New Chevrolet is indeed superior—superior in first-price because no car of similar equipment and quality can be bought for less—superior in maintenance cost because it has the lowest cost of operation of any car built.

Comparisons Sell Chevrolet

Standard Rear Axle Construction. Strong, Quiet Spiral Bevel Gears.

Standard Transmission—three speeds forward and one reverse.

Standard Braking System—foot service brake, hand emergency brake.

Standard Electrical System—Starters, storage battery, electric lights.

Standard Cooling System—pump circulation, large, honey-comb radiator and fan.

Standard Doors—two on roadster coupe and light delivery, four on touring and sedan.

Standard Instrument Board—speedometer, ammeter, oil pressure gauge, lighting and starting switch and choke pull.

Standard Type of Carburetor, with exhaust heater.

Powerful, Valve-In-Head Motor—the same type as used in successful cars selling at much higher prices.

Demountable Rims—with extra rim.

Many Other Advantages which will be noticed on inspection, comparison and demonstration.

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