

### NEEDS FOR MORE SILOS

#### Leaf Saps May Mean Much 'Rusted Corn This Fall—Can Be Saved In Silos.

By PROF. H. H. MUESELMAN, Department of Farm Mechanics, Michigan Agricultural College.

East Lansing, Mich.—Conditions prevailing in Michigan may lead those Michigan farmers who have already acquired one of these aids to progressive agriculture to do more thinking about their silos. In many sections of the state corn was seeded late and it is a week or more behind schedule. A favorable summer, with much of the crop maturing in the second week of August, so blessed—and of all things the weather is least to be trusted—therefore, has meant that the crop may be caught by the frost or by necessity harvested before it is ripe. In either eventuality there is nothing better than to reduce losses to a minimum. Immature corn is not so good as the corn for in better ways than by storing in a well-built silo.

If you are considering putting up your surplus crops, it is well to consider for building should be made early, for considerable time is required to secure materials, and still more allowance should be made for the work of construction.

This question naturally presents itself: "How big a silo should be built?" The increasing use of the ammonia silo, the fact that it has been greatly extended. This can be safely done, because the heavier type silos are less apt to blow over. The increased capacity of the ammonia silo is due to the standpoint of capacity. It may be stated that a silo 40 feet in depth has three times the capacity of a silo 14 feet in depth. In calculating the size of silo it is customary to figure 35 pounds per bushel for a period of six to eight months. For a period of seven months this requires 40 pounds per bushel. If the silo is to be used for a period of 14 to 16 months, it should be at least 40 tons capacity will be required. To prevent spoilage of silage at least two inches must be fed off the top of the silo. Increasing the height of silo, therefore, rather than its diameter, is of advantage in that it increases the depth which is available for silage.

As a rule a silo may be profitably used with ten cows. It is not advisable to build with a diameter of less than 14 feet. The height of silo is to make the height at least three times the diameter. This will be seen that a 10 by 30 foot, 12 by 35 foot or 14 by 42 foot will be about the right proportions to build.

Remembering that each full-grown animal requires about 2 1/2 tons of silage per year and that the silo should be filled with silage for 18 months, the silo may be very easily determined. The approximate capacity of silos of varying diameters and heights is as follows:

Diameter 10 feet—Height 40 feet, capacity 20 tons; height 35 feet, capacity 18 tons; height 30 feet, capacity 16 tons.
Diameter 12 feet—Height 40 feet, capacity 30 tons; height 35 feet, capacity 27 tons; height 30 feet, capacity 24 tons.
Diameter 14 feet—Height 40 feet, capacity 40 tons; height 35 feet, capacity 36 tons; height 30 feet, capacity 32 tons.
Diameter 16 feet—Height 40 feet, capacity 50 tons; height 35 feet, capacity 45 tons; height 30 feet, capacity 40 tons.
Diameter 18 feet—Height 40 feet, capacity 60 tons; height 35 feet, capacity 54 tons; height 30 feet, capacity 48 tons.

### CITIES DEMAND GRADED EGGS

#### Standard Requires That Dozen Must Weigh at Least Twenty-Four Ounces.

By PROF. C. H. BURGESS, Department of Poultry Husbandry, Michigan Agricultural College.

East Lansing, Mich.—The old notion that "an egg is an egg" and being such must be no more, has fallen into disrepute in city markets. If eggs are to be sold to the general public, they are subjected to examination and classified into different grades. This is a fact with which many still-unaware city dealers who are still unaware that such grading is practiced.

First of all, the eggs must be up to weight. Last of the Michigan Agricultural College, a dozen of eggs must weigh 24 ounces. Next to come—Some markets demand a certain sort. It is not in the mind of the consumer to buy a dozen of the months and depends of this point. The nutritive value of white eggs and brown eggs is the same.

"Checks" are from eggs with "pores" all of the qualities which are cracked. They are not to be cracked. "Lakers" like the above except that they have a solid part of their contents.

country problems by a course of study designed to acquaint them with important rural facts. "The new rural civics" says W. W. Doherty, director of the Michigan Agricultural College, "must supplement his theological training with agricultural knowledge." The conference closed with a visit to the Michigan Agricultural College in the state to attend the next meeting, which will be conducted in 1916. The session just ended was the largest ever held in rural education in Michigan.

### LIME-SULPHUR IS REMEDY

#### Applied as Dilute Spray, It Will Control 'Leaf Spot,' Plant Pathologist Declares.

By DR. O. H. COONS, Plant Pathologist, Michigan Agricultural College.

East Lansing, Mich.—Bare cherry and plum trees, lying as they do, are as much as Eve went to wear, can be found in numerous Michigan orchards this season—though the condition is more or less annual. These trees, stripped as they are of their leaves in extreme cases, are the victims of a disease known as "leaf spot." It gives warning of its untoward presence early in the season by causing the foliage to become yellow, or take on a ragged, shagreened appearance.

But before discussing remedies, a few words about the nature of the trouble may not be amiss. "Leaf spot" is caused by a parasitic fungus. This fungus is so minute that it requires a microscope to bring out the details of its form, and like all parasites, it steals its living from its host. Because it is so small, it is able to enter the plant through the leaves, and when it has done this it grows in the tissues and produces small, dark spots. As the spots become dry and brittle, they are eventually whipped out by the wind, making the leaf look as though it had been eaten by a slug. In other cases, dark spots called "one-sided teeth" of an inch in diameter are formed on the leaves, causing them to wither and fall. White or pinkish, watery spots are also formed, which are made up of the small, seed-like reproductive bodies of the fungus—the spores. When this

### LEAF SPOT OF CHERRIES

#### The Picture Shows Defoliated Trees in an Orchard, August 15.

summy mass is wet the spores float in the water and are splashed about, lodging on leaves and in turn infecting them. This explains why the disease is most severe in seasons of abundant rainfall.

The general effect of the parasite is to cause a "rusting" or drooping of the leaves. Upon these it lives through the winter, resuming its devastating work in the following spring. But even if the leaves are not entirely destroyed by the parasite, they are greatly crippled. As all the starch and sugar found in the fruit is manufactured in the leaves, anything which damages them will, of course, reduce the fruit to a small and poorly flavored one. "Leaf spot" commonly appears after the crop is harvested, however, and the grower frequently fails to realize that the damage done to the fruit by its greatest effect is not felt by the tree until the next season. This following crop is always mediocre, and the fruit is small and is generally small and poorly flavored. Another effect is to render trees which have lost their leaves very susceptible to winter injury, for as they are left without sugar stored in their tissues will not resist a hard winter.

It is interesting to note that the disease is readily controlled by summer sprays of dilute lime-sulphur. The common commercial lime-sulphur, used in the proportion of one part to four parts of water, is usually employed in Michigan orchards and is applied according to the following schedule:

First—Immediately after the blossoms fall.

Second—Immediately after the blossoms fall.

Third—Ten days or two weeks later. Fourth—Ten days or two weeks later, depending upon the weather conditions, throughout the growing season.

In the first two sprays 2 1/2 to 3 pounds of lime-sulphur should be added to every 50 gallons of spray. This poison controls curculionids. With Japanese varieties of plums, self-sterility is a serious matter, but is substituted for the commercial lime-sulphur.

In addition to this control measure, it is well to remove from the preceding crop, before infection of the new leaves in the spring can take place, is strongly advised. This is a sanitary measure and gets rid of most of the sources of infection.

To Wake Up Country Church. More than 180 rural pastors from churches all over the state attended an interdenominational country life conference at the Michigan Agricultural college a few days ago. They arrived at the conclusion, among other things, that if the country church is to perform all the duties that are expected of its laity and take a new step in things. It was recommended, as a means for bringing the re-awakening about, that ministers come to rural life camps in the future.

## WEATHER BILLS START BIG DRIVE AGAIN

### PROCEEDED FOR WEEKS BY HEAVY ARTILLERY FIRE, OVERWHELMING FOE IN RUSH.

### TEN TOWNS TAKEN FIRST DAY

#### Most of Positions Taken Have Been in the Teuton's Possession Since They Invaded Belgium.

London.—The great assault of the Entente Allies, for which the Belgians had been preparing for three weeks in bombardments of unprecedented violence that have floundered along a front of about 20 miles from the region of Dixmude to south of Ypres around Warminster.

The attack started early Tuesday. It was carried out jointly by French and British troops—the French holding the line north of Warminster, the British south of it. The end of the day's fighting found all the Entente plans carried out. The French were holding the line north of Warminster, the British south of it. The French were holding the line north of Warminster, the British south of it.

Notwithstanding the fact that the Teutons had masses almost countless numbers of guns and numerous divisions of fresh troops to hold back the Entente forces, the British and French carried out their operations with dash and determination. At some points attacking forces passed the British line, but were driven back to their capture, pressed on and took extra territory.

The casualties of both the British and French were relatively slight, considering the intensity of the fighting on various sectors, while the Germans in addition to their men and material suffered heavily in killed or wounded.

A majority of the positions taken by the Allies had been in the possession of the Teutons, who they invaded Belgium. The French attack, which resulted in the capture of Steenstraete, was pushed beyond that town and penetrated German lines to a depth of nearly two and one-half miles. The British pushed their deepest wedge into the line to a depth of two miles.

### 2,000,000 RUSSIANS RETREAT

#### Eleventh and Seventh Armies Marching Steadily Rearward.

London.—A dispatch to the "Post" from Petrograd, referring to the Russian retreat in Galicia, says that conservatively estimated that more than 2,000,000 Russian troops are steadily marching rearward. The retreat of the Eleventh and Seventh armies with their reserves.

A dispatch to the "Times" from the headquarters of the Russian seventh army says the situation is more hopeful. Panics among the retreaters are suppressed ruthlessly. Three divisions of cavalry have taken positions across the whole front of retreat.

Deserters Are Shot. Deserters are shot and attempts to spread panic are suppressed by prompt and effective measures. Officers and privates who enjoy complete immunity under the committee system lead on the highways.

Heretofore a traitor to his country. Red badges and other symbols which accompanied the demoralization have almost disappeared.

### THIRTY-FIRST LOSES 250 MEN

#### Physical Defects Cause Discharge of Officers and Privates.

Detroit.—More than 250 enlisted men of the Thirty-first Michigan regiment stationed at Detroit recently have been discharged from the service. A result of medical examinations made public Tuesday night.

There was sorrow as the messages telling of the discharges came in. Several of the men who were discharged said that they were barred from the trip to France.

FOOD PRICES IN GERMANY HIGH. Fresh Fish Sells at From 58 to 86 Cents a Pound.

Washington.—Information obtained at the offices of the food administration shows that many cities, particularly in the north, are suffering from a shortage of almost prohibitive prices. Fish for frying is bringing more than \$1 a pound. Goose fat is sold at \$3.34 a pound.

Fowls generally are high. Fresh fowls bring \$1.01 a pound; fresh geese about \$2.08; salted fowls \$1.01 a pound. Fresh eggs are sold at \$1.32 each; washed eggs \$1.01 to \$1.50 each.

These fresh eggs at from 58 to 86 cents a dozen are sold at from 58 to 82 cents a pound.

Results Similar. Are you a married man? Ask the woman for a divorce. She will get the action on and place him on a stretcher. "No, doc," said the man hastily, "I was an orthodox as a kid."

Well's Answer. "The letter to have loved and lost than never to have loved," she said to him. "Yes," answered the girl with scornful countenance, "but it's so darn right more expensive these days."



1—Two women victims of a German air raid on London being taken to their homes from a hospital. 2—Premier Kerensky, now dictator of Russia, reviewing some of his troops. 3—Soldiers in the Gettysburg training camp being taught the most necessary French words and phrases. 4—King Valdemar of Slav, who has declared that a state of war exists between his country and Germany and Austria-Hungary.

## NEWS REVIEW OF THE PAST WEEK

### Secretary McAdoo Startles Congress by Asking \$5,000,000 More for War.

Administration, though it doubtless will be remedied with the willing assistance of the American railway executives. The demand for cars already is tremendous, for the moving of materials and supplies for the army training camps and for a dozen other purposes, and it will be increased immediately as the men of the National Guard and of the national army begin moving to their allotted places.

### Russia's Collapse in Galicia.

The collapse of Russia's offensive in Galicia, due to insubordination, led to a general retreat, and the retreat into a virtual rout. Abandoning vast military stores and burning villages, the millions of Slav folk everywhere, where for the time at least, they stood firm, fled to the westward, leaving the way to the Baltic, the Russians gave ground.

Premier Kerensky, armed with dictatorial powers, declared he will accept a policy of blood and iron, and will not permit any more to stop the war. He ordered his loyal troops to shoot down any who deserted or refused to obey orders, and he refused to let the army to be disintegrated. He ordered the arrest of the traitors, and he ordered the arrest of the traitors, and he ordered the arrest of the traitors.

On the demand of the military commanders at the front, the provisional government has again put its force against punishment for treason, which was abolished at the time of the revolution.

However, this second great Russian campaign, serious though it be, is not fatal. Kerensky and his colleagues are determined to rid their country of the German, and their traitors who have been assisting the enemy. It is believed he will be either executed as an agent of the German general staff, or at least isolated as insane. Russia and her friends still believe the country was full of long columns of fleeing Russians on which the Teutons and their allies played with merciless slaughter.

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### WORK OF ORGANIZING ARMY

#### Actual Mobilization by Designated Authorities Is Well Under Way—Duties of Provost Marshal.

Washington.—Preparations for actual mobilization of the National Army are well advanced here, with local sections in all portions of the country begun summing up for examination the men who will compose the

### TRANSPORT PROBLEM IS BIG

Shipping Board Quarrel Ended by Change of Personnel—Russia's Military Collapse in Galicia Complete—French Repulse Tremendous, German Attacks.

By EDWARD W. PICKARD. The United States is having impressed upon it the magnitude of the war in which it has embarked, and is beginning to realize that it must be freed through to a victorious end at tremendous cost in money, energy and, doubtless, life. The money end of it was brought sharply to the attention of congress last Tuesday, when Secretary of the Treasury McAdoo informed the lawmakers that \$5,000,000,000 more than had been estimated was needed, and needed at once, if this will be expended for ordnance.

Senator Smoot informed the senate that by the end of the fiscal year the war expenditures by the United States are likely to amount to \$20,000,000,000. The figures staggered the members of both houses, and there was a hasty change through to the senate finance committee to revise its report on the war-tax bill.

Transportation is now one of the administration's biggest problems—transportation by both land and sea, and especially the latter. An immense number of vessels must be provided in order to transport our troops and the vast supplies they and the allied armies must have, and efforts are being made to gather together all the available ships, even Japan being asked to release many of her vessels for the war.

Meanwhile the plan of building a monster merchant marine of our own was given added impetus last week. As had been predicted, President Wilson was compelled to take a hand in the dispute between General Goethals and Chairman Denham of the shipping commission, and he settled the matter by accepting the resignations of both, and of Capt. J. B. White as well. He then named E. N. Hurley of Chicago as chairman and Blahoduzo Coby as member of the board, and Rear Admiral Capps, long chief constructor of the navy, as head of the emergency commission in place of the late Mr. Coby. Of these appointments, only that of Coby was adversely criticized. Hurley is an energetic business man and has been in charge of the construction of the Panama Canal, and Blahoduzo Coby is a member of the board, and Rear Admiral Capps, long chief constructor of the navy, as head of the emergency commission in place of the late Mr. Coby.

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