

FARM MACHINERY EXHIBITION MARCH 15

TWENTY CENTURIES SAW
NO CHANGE IN MANKIND'S
METHOD OF TILLING SOIL

Nearly All Improvements Have Developed In Last Eighty Years, Roseburg Implement Dealer Says—Turning Point Came 20 Years After First Reaper.

Modern Machinery Enables 15 Per Cent of Population to Supply All of Nation's Foodstuffs, in Addition to Exportable Surplus—Man Power Released From Agriculture to Aid Progress Elsewhere.

Practically all improvements in farming methods have come within the last 50 years, J. R. Wharton, local implement dealer, declared in a most interesting address at the last regular meeting of the Roseburg Kiwanis club. For 2,000 years there was practically no change in methods of farming, but dating from about 1850 the producers began to adopt the use of machinery and labor saving equipment, until the number of persons engaged in agricultural pursuits has changed from 90 per cent, to 15 per cent, while production has materially increased during the same period.

The harvesting and tillage tools of the Romans differed very little from the ones used by our own farmers prior to 1850, Mr. Wharton declared.

"Many of our farmers," he stated, "used the old wooden plows, similar to those used in ancient times. The first steel, moldboard plows were not put on the market until 1850. Even then the farmers would not accept them, for they were very superstitious regarding their use, and it was widely proclaimed that a steel plow poisoned the soil."

"The sickle used by the old Romans to cut grain was very similar to the one used 2,000 years later. About the only difference was that our farmers used their hands to swing it and put a cradle on to catch the grain as it fell, making it easier to tie in bundles."

First Reaper in 1831.

"The first successful reaper was made by Cyrus Hall McCormick in 1831, but it took about 20 years to introduce it and to get the farmers to accept it."

"Before 1850 it took 55 to 90 per cent of our man power working long hours on farms, to produce enough food stuffs to feed themselves and the other 10 or 15 per cent. Now 15 per cent of our population can raise enough to feed the other 85 per cent, export a lot and then not know what to do with the surplus. The greatest reason for this change is the development of modern farm machines."

Mr. Wharton made a very interesting statement when he reported that the largest tractor used for agricultural purposes in the world is being operated in eastern Oregon, a few miles south of Arlington. This tractor pulls fifteen 16-inch plows that cut a 26-foot section in one time and turns over approximately 150 acres every 24 hours, or it harrows a strip 35 feet wide. It does, alone, as much work as 168 horses could accomplish in a day.

"In 1850," Mr. Wharton continued, "it took the labor of one man for four hours to produce a bushel of wheat. Now it averages less than 10 minutes."

Not All Progressive.

"Farmers, however, are not all keeping up with the times. There are still some farmers who cut their grain with the old cradle. Right here within one mile of this city a small field was cut with a cradle this year and the grain was bound with straw rope just as it was a hundred years ago. One farmer upon seeing one of these cradle machines in our store a short time ago, asked if they were still being sold, and when told that such was the case stated that he had been keeping one that had belonged to his father as a curiosity, but that he guessed he would throw it away if the farmers were still buying new ones."

Man Power Diverted.

"That modern farm machines played as important a part in the World war as did the guns, for with so many men required for the branches of the service, the matter of providing food would have been a great problem if our man power had been required on the farms."

Costs Are Slashed.

"We are far from our height in farm efficiency yet. While the average cost of producing a bushel of wheat in this country is around a dollar a bushel, many farmers with modern tractors and combines are producing it at a cost of from 40 to 50 cents."

"Figures show that the average cost of producing cotton is around 21 cents a pound, yet 27 Texas farmers, with modern power equipment, produced it for less than five cents a pound."

"We wonder why the farmers of 80 years ago took 20 years to adopt the steel plow after it was built."

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BUYING ON CO-OP
PLAN SERVES OVER
250,000 FARMERS

Between 25 and 30 large-scale farmers' cooperative buying associations serve more than a quarter million farmers in the United States, and in 1927 purchased supplies for their patrons to the value of \$60,000,000, according to a report by the department of agriculture. Although most of the large-scale purchasing organizations are affiliated with other farmers' organizations, five, for which data are available, are independent enterprises.

These serve directly or through local units approximately 150,000 farmers, and in 1927 transacted business amounting to \$30,000,000. These purchasing associations handle a variety of products, among which are dairy and poultry feeds, seeds, spraying materials, fertilizers, orchard supplies, box-shoots, and other packing supplies.

The total number of farms in the United States in 1925 was 4,371,440 (and the total farm population at 25,981,668), according to the census of agriculture for that year. It is apparent from the preceding data that the market for certain farm supplies may be found in the relatively few buying associations rather than among a quarter million individual farmers.

AMERICAN FARM
INDUSTRY NOTES

(Associated Press.)

\$142,740,000 For Florida.

TALLAHASSEE, Fla.—Florida's crops, poultry, dairy and live stock products in 1929 were valued at \$142,740,000.

Truck Crops Increase.

SACRAMENTO, Cal.—California's vegetable crops have increased 111 per cent since 1929.

Farm Income Maintained.

RAPID CITY, S. D.—South Dakota's 1930 farm income should be approximately the same as that of 1929, according to estimates by the state college of agriculture.

The Apple Appetite.

Well Fitted for Agricultural Job



ARTHUR M. HYDE

This native of Missouri and former governor of that state is well suited for the position of secretary of agriculture, to which he was appointed by President Hoover. Although educated for the profession of law, Mr. Hyde's early life was spent in a large farming district and later he operated three farms. As governor, he championed better rural schools, advocated information service to agriculturists, and urged the raising of only pure-bred livestock and the planting of only the finest quality seeds.

SUMMER OIL NEW
MATERIAL USED TO
COMBAT INSECTS

By HARRY E. WHITE
(Horticulturist with Sherwin-Williams Co.)

The latest development in spray materials of any importance is the summer oil. They must meet very exacting requirements because of the fact that they are to be applied to a breathing organ.

The base oil used in the manufacture of the summer oils is much more highly refined and lighter in body than the oil used in the dormant oil sprays.

It is no longer necessary to allow San Jose scale to take the crop during the summer where the dormant spray failed to give control or was not applied. Summer oil will control San Jose scale just as well as will the dormant oil or lime sulphur. Two and one-half to three gallons to one hundred gallons of water is sufficient to give control. It is important that the spray be applied at least two months before picking time on Yellow Newtowns or other yellow varieties in order to allow the discoloring spots to clear up. The oil used on Newtowns should not be above 55 viscosity because of the tendency of the higher viscosity oils to darken the calyx lobes and the calyx basin.

Fighting the Moth.

The addition of summer oil to two or three cover sprays for control of codling moth will greatly aid in cutting down the percentage of worms as well as stings. In order to get the most benefit the oil should be added to those sprays that will catch the most eggs present on the fruit or foliage because the chief function of the oil is to kill the egg. Two oil sprays applied at the proper time should reduce the percentage of worms at least two-thirds and approximately the same percentage on stings. This will reduce the percentage of culls and put more apples in the fancy and extra fancy grades.

Superior aphid control can be secured by using summer oil with nicotine sulphate at a materially reduced dosage. One gallon of summer oil and one-third pint of nicotine sulphate to one hundred gallons of water will give a good control of aphid as one pint of nicotine will give when used alone. This combination greatly reduces the cost of the aphid spray and experiments indicate that better control is secured with the oil-nicotine combination for the reason

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PROFITABLE PRUNE
SELLING DEMANDS
CAREFUL DRYING

By L. N. MILLER

Since the early days of our race, when the command, "Subdue the Earth" was given, it has ever been man's ambition, due to his very nature, to unfold the pages written by a creator, attempting to release the forces stored for future generations in order to put into use for convenient and commercial purposes the seemingly new methods.

Nature itself has not changed, but man's methods due to a better understanding, have undergone a more or less constant change and in our time we are prone to boast of our "modern methods."

Whether or not, in our time, we have reached the proper state of development or exceeded it is a question. We do not doubt suggest classifying commercial enterprises as well as religious and so-

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Northwest Wool Growers Urged
To Avail Themselves of Benefit
Of Existing Cooperative Plans

In keeping with the expressed recommendations by the federal farm board and the National Wool Marketing corporation that wool growers should build up and support existing cooperatives, the largest existing wool cooperatives in the west are experiencing substantial growth under the new national wool marketing plan.

The Montana Wool Cooperative association is expecting to handle half of the wool of the state of Montana. It is understood that between five and six million pounds of wool are now signed up. The Utah Wool Marketing corporation has signed 550,000 fleeces in Utah, including half of the Jericho accumulation in Texas and New Mexico cooperatives had signed about two million pounds of wool up to March 1st.

In the northwest the Pacific Wool Cooperative Wool Growers have over seven million pounds of wool signed at the present time. This organization, whose headquarters are at Portland, Oregon, operates over five states, has been in existence nearly ten years, and was one of the few regional associations ready to qualify as a unit of the National Wool Marketing corporation.

The farm board and the National Wool Marketing corporation have repeatedly urged growers to join existing cooperatives if they are to receive full benefits of the agricultural marketing act.

"It is only good, sound business that existing cooperatives should

be used rather than that new, inexperienced ones should be organized in a territory adequately served by experienced, regional wool cooperatives such as the Pacific Wool Marketing corporation in the northwest," says R. A. Ward, executive director of the National Wool Marketing corporation and secretary of the wool advisory committee. "Setting up new, untried local cooperatives results in a duplication of machinery, duplication of effort, duplication of expense and the creation of harmful competition between growers' groups in their efforts to obtain wool, the expense and ill-effects of which are all borne by the wool grower. Any new cooperative will have to learn by experience what the older cooperatives have learned in the same school. Strong, regional cooperatives will give the wool growers a majority of control in their marketing operations, which will not be the case with a large number of small, weak units even though united in a single sales agency."

SOIL MUST BE
FED TO INSURE
GOOD YIELDS

Fertilization Essential to Constant Productivity; Neglect Means Land Impoverishment.

Industry Cooperating With Growers Toward Better Crops Has Invested 300 Million.

By GEO. R. CLAPP

Fruit trees, grass, shrubs, flowers and vegetables are living things, and like human beings, must be fed. Not only must they be fed, but in order to thrive, and produce maximum crops, must have a balanced diet. Meal time comes regularly for fruit trees, the same as for human beings.

Science in agriculture is working miracles, and it behooves all to learn more of the mysteries of nature, and apply the findings of science insofar as they may have an influence on well being, and add to prosperity and happiness.

With the harvesting of each crop, we are digging out of the earth, stores of concentrated plant food, and in return, it is necessary to restore the fertility of our soils, by the use of mixed fertilizer.

While farm manures have for many years been depended upon as the cheapest source of plant food in the maintenance of fertility, we are going to recognize the fact, that manure is not a balanced plant food, nor can we hope to maintain the productivity of our land, and grow big crops, economically, unless we balance the ration with commercial fertilizers, which supply the needed elements for feeding our crops.

Variety Necessary

Fruit trees do not subsist on one kind of plant food alone. They require various elements. Those elements of plant food which are drawn on most heavily, are nitrogen, phosphoric acid, and potash. If only one of these elements is applied to the soil at a time, the soil is depleted of the other two.

Take for example, the application of fertilizer which contains only a high percentage of nitrogen, and which brings about a chemical action in the soil, and makes available the unavailable phosphoric acid, and potash compounds. This will eventually result in almost total impoverishment of the soil.

Fertilizers over balanced in nitrogen, result in profuse, immature, succulent growth in the tree and fruit. Soft growth in the tree may result in winter injury, while soft growth in the fruit, promotes rot, green, uncolored fruit, of poor keeping quality. This condition hampers the development of fruit spurs—producing twigs and wood growth instead—also produces sterility in the blossom.

It is not hard to understand that a tree fed in this manner, shows

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Helps Co-Ops



ALEXANDER H. LEGGE

Heads the federal farm board, charged with the task of loaning many millions of dollars to aid cooperative marketing agencies. Mr. Legge was chosen for his arduous task while holding an executive position with the McCormick Harvesting Machinery company. Although his actions since the recent collapse of the wheat market have been bitterly assailed by independent concerns, Mr. Legge firmly holds his ground, with the understanding that he reflects the ideas of President Hoover.

COMMERCIAL CHICK
HATCHERIES SHOW
OUTPUT INCREASE

Four hundred and ninety-three commercial poultry hatcheries in the United States hatched a total of 3,977,768 salable chicks in January of this year, as compared with 3,189,721 chicks in January last year. These figures are announced by the bureau of agricultural economics, U. S. department of agriculture, to which the hatcheries reported the volume of their hatcheries.

A comparison of orders for chicks booked up to February 1 for delivery during the year indicates an increase of 43.7 per cent over the same date a year ago. Additional information submitted by hatcheries indicates that the total hatchings for 1930 may total about 17 per cent more than the total in 1929.

The above figures are from the first of a series of monthly reports to be issued by the bureau of agricultural economics, showing a comparison of the number of chicks hatched in the same plants in the months of January to June, 1930, inclusive, with the same months last year. Schedules on which to report the information necessary to compile these monthly reports are to be sent to all commercial hatcheries of over 10,000 eggs capacity of which the bureau has record.

PLANT-SETTING
MACHINES SLASH
LABOR ONE HALF

Use of plant-setting machines on Oregon farms cut the labor required for transplanting kale approximately in half. A survey among farms of the state by agricultural college workers revealed that setting the plants out by hand required 25 hours of man labor per acre while machine transplanting required only 13 man hours. According to reports are to be sent to all commercial hatcheries of over 10,000 eggs capacity of which the bureau has record.

Mechanical transplanters are equipped with water tanks and each plant is watered as it goes into the soil. Even strawberries have been set out mechanically with success in the east.

Transplanters may be of one, two or three-row size. For large acreages the multiple row machines are more economical because they save time and require less man labor in proportion to the amount done. A one-row machine requires three persons; a two-row machine, five persons; and a three-row outfit, seven persons. Three-row transplanters are comparatively new.

Tractor power has been found most desirable for transplanter operation because it is more steady and uniform than horse power.

FIRST SHOW OF ITS KIND
IN ROSEBURG TO BE STAGED
IN K. OF P. LODGE BUILDING

Implement Firms Sponsor Display to Promote Better Understanding With Industry Of Agriculture and to Point Out Way to Lower Cost of Production.

Experts to Speak on Tillage, Irrigation, Tractors and Harvesting Equipment—Factory Representatives to Furnish Requested Information—Free Lunch to Out-of-Town Visitors.

The first farm implement show ever to be held in Roseburg will be presented Saturday, March 15, at the Knights of Pythias building, sponsored by the leading implement and farm equipment and supply dealers of Roseburg. Displays of all of the latest types of farm machinery and equipment will be made, together with a most interesting and educational program that will be of great value to all farmers attending. The show carries no obligations to those who attend, and should be very beneficial in promoting a better understanding of types of farm equipment, data on supplies available for individual needs and expert advice on farm problems, handling and usages of machinery and other such information. Programs will be presented morning and afternoon, but the major portion of the time will be left open for inspection of the equipment and machinery that will be on display. A free lunch for out-of-town visitors is planned at noon.

This show is sponsored by the Miller-Sanford Tractor company, of which E. M. Dyer is local agent; Wharton Brothers, The Douglas County Cooperative Farm Bureau Exchange and the firm of Leake and Boyers.

These dealers believe that the farming industry can best be served by lowered costs of production, and that the use of modern farm machinery is the most effective way of reducing costs of producing farm crops.

It has been pointed out many times that it is just as effective and profitable for the farmer to lower the cost of producing a certain crop as it is to receive an equivalent increase in price. Regardless therefore of whether or not markets are high or low, the farmer is making a profit, the implement dealers point out, whenever he can lower the expense required to produce any crop.

Reluctance Is Drawback.

Most farmers, they believe, realize this fact, but often feel a certain hesitancy about going into a business house where farm machinery and equipment is handled merely for the purpose of investigating the various types of machinery available. While dealers are always ready to take the time to explain to any person the new machinery being developed, help farmers with their individual problems, or give advice regarding how production costs may be lowered by securing suitable machinery, yet farmers often do not like to demand such time from the dealer without making some sort of a payment, or feeling under obligation to buy in return for the service.

Therefore they often neglect buying the things they actually need for efficient farming because they do not make sufficient investigation. Then, the dealer is forced to report many farmers come into implement houses determined to buy a certain type of equipment, which, in many cases does not suit the particular needs of that producer as well as some other type of equipment would do. This type of buying is usually induced by special advertising during the winter months, the time to investigate all types of equipment in which he is interested, selected a size and model most suitable for his own particular requirements, he would often secure far better results.

Show Meets Problem.

In order to meet this situation the machinery and equipment dealers have arranged this show, at which many types of machinery, equipment and supplies will be on exhibition. There will also be an unlimited supply of literature dealing with the many types of machines, so that the farmer will have a wide range of information upon which to base any selection that he may decide upon.

There will also be several factory representatives and agents present to answer all questions and to give such information as may be desired.

The dealers desire to have it very clearly understood that these factory representatives are not on hand for the purpose of forcing sales, but are primarily present for the purpose of answering questions, giving information on their respective lines of equipment, and helping in any possible way with recommendations to meet individual needs. Consultation with any of the men connected with this exhibition, it is pointed out, does not obligate the inquirer in any way, and the dealers urge that the farmers of the county avail themselves in every possible way of the opportunity to secure all possible information regarding all types of farm machinery and equipment that may be applicable to the particular line in which the farmer is chiefly interested.

The exhibit will be maintained on the lower floor of the Knights of Pythias building in the room used for garage space by the Roseburg garage.

In addition to the display there will be an interesting and helpful program both morning and afternoon.

Talks will be given from 10 to 11 a. m. and from 2 to 3 p. m. in the lodge hall on the second floor of the lodge building.

A. R. Healey, of the International Harvester company, will speak on the subject of "Tillage." Charles W. Harrison, sales manager of the tractor department of the Mitchell, Lewis and Staver company, will discuss tractors. W. J. Tenby, of Fairbanks, Morse, and company, will speak on irrigation equipment and problems. Prof. A. J. Gilmore of the farm machinery department of the Oregon State college will speak on harvesting equipment.

County Agent J. C. Leedy has arranged in arrangements for the show and will conduct the program.

ROTATION OF CROPS
NOT MOLESTED BY
WEED ERADICATION

Weed eradication is becoming more and more important on our American farms. Quack grass and Canada thistle, scarcely recognized by many farmers a few years ago, have since become regular but unwelcome boarders on the summer fields. Use of special weeders, harrows and cultivators has been found an effective and inexpensive method of combating growth of troublesome and extremely hardy weeds.

By this method the ground may be worked after summer plowing, late in the fall and in early spring, or during summer fallow when lying idle. The regular system of crop rotation need not be interfered with.

In the northwest, field cultivators have been used for several years to eradicate Canada thistle, sow thistle and other noxious weeds. Popularity of this implement has spread southward and eastward. Spring teeth or stiff teeth may be used on the field cultivator.

The latter can be equipped with either ordinary shovels or sweep-like blades, commonly called "duck feet." "Duck foot" shovels dig weeds off below the surface and bring up large chunks of earth where they can be brushed with a harrow or pulverizer.

A springtooth weeder, made especially for tearing out weeds, roots and all, was used on several plots of quack. The plots were plowed in early fall and then gone over with the weeder every 10 days or during summer fallow. The grass did not appear again in spring, and has apparently been killed out, according to the latest report from the university.

HENRYVILLE, Ind.—Three million spruce seedlings of the stock of the Black Forest of Germany will be for sale at the Clark county state forest in 1933. The Indiana forestry department has received 300 pounds of the seed which will be planted this year.