

GOOD ROADS AND THE FARMER

Highway Expert of Agricultural College Explains Economical Repair Work.

O. A. C., CORVALLIS, ORE., July 20.—"To the farmer better roads frequently mean the difference between affluence and bankruptcy," said Prof. Ernest Flagg Ayres, highway engineer of the Oregon Agricultural College, in a lecture this week to the summer students.

"A Wisconsin farmer held 1,000 bushels of potatoes in his cellar, waiting for a good price. He was offered 92 cents in March, but they must be delivered in town, and the roads were so bad he could not haul over them. When he finally got them to market his potatoes brought him 30 cents a bushel. The bad roads cost him \$620, and now he is an ardent booster for any movement promising relief.

"While the farmer receives a great financial gain from good roads as anyone, he has the added social benefits. Under present conditions it is often impossible for his children to go to school regularly, his family to go to church except when the roads are dried out, his doctor to reach him in time to be of most help, or his mail to be delivered regularly. With better roads this can all be changed, and graded schools and larger churches always follow these improvements.

"It is not necessary that a great deal of money be spent on our highways, but what is invested should be used carefully and intelligently. A few dollars spent at the right time will save repairs costing hundreds, and most of the roads where there is no heavy through travel may be improved in this way."

Mr. Ayres then described the process of building sand-clay roads: the initial grading with a proper crown and drainage ditches, the distribution and packing of the clay, spreading of the sand, and ploughing and harrowing it in lightly on top. This type of road has given excellent satisfaction in the southern and middle-western states, but little work of the sort has been done as yet in the Pacific northwest. It has proved successful in soils and climatic conditions similar to those found in Oregon, and there is no question as to its value for our rural highways.

"The saving in expense over other forms of road is no mean item," continued Prof. Ayres. "The average cost for sand-clay roads is but \$723 a mile for the 24,601 miles in the United States, compared with a cost of \$4,989 a mile for macadam. In other words, about seven miles of good sand-clay road can be built for the same money as one mile of plain or water-bound macadam. The cost of maintenance is less than for any other form of improvement except the earth road, and horses and automobiles alike prefer it to any of the hard surface roads.

"The road must first be graded and drained carefully, and should be crowned about one inch to the foot and smooth as a rag. It can be greatly improved by adding sand even if no grading has been done but the expense will be much greater. The sand must be sharp and coarse, but need not be as clean as is required for concrete. It should be brought and piled along the shoulders of the road in dry weather when teaming is cheaper, though construction can not begin until the rains soften the clay. The cheap-

est way is to spread the sand 4 to 6 inches deep over the wet clay and let the traffic mix the materials. Economy is the only argument for this, and as more sand is usually required to fill the ruts and holes formed by the heavier teams, even this advantage is sometimes lost. The road is almost impassable to heavy loads until the sand and clay are thoroughly mixed.

"A better way is to spread the sand evenly to a width of 12 or 16 feet, mixing well with plough and harrow. A depth of 6 inches is enough for light travel, and a foot for heavy loads. The road drag should be used often to maintain the crown and fill ruts which will form in the first few months. If the road does not compare favorably with gravel or macadam as soon as the sand is added to the clay, it should not be considered a failure. Its construction is a gradual process, and the surface will not be at its best in less than six months. If it gets muddy, add more sand; if it is too dry and dusty, more clay is needed. All that is required for maintenance is the addition of a little more sand to the clay each year, and the occasional use of a drag."

Standard Oil Competitor to Invade Oregon.

MEDFORD, ORE., July 17.—Invasion of Oregon by the Standard Oil company's great competitors, the Indian Refining Company of California, controlled by Rothchild and handling oil products of Borneo, Sumatra and other foreign oil fields, was announced today by the purchase of a site for a distributing plant at Medford and letting contracts for the erection of tanks. Similar plants will be erected at Eugene and Salem.

Third Party Men Meet and Name Delegates.

SALEM, ORE., July 22.—Followers of Colonel Theodore Roosevelt met Saturday afternoon at Marion Square and elected delegates to attend the meeting to be held in Portland for the purpose of putting in the field a ticket for a third party. W. G. East, a banker, of this city, presided, and J. D. Waring acted as secretary. Five delegates were elected and plans laid for the perfection of a county organization. F. W. Mulkey, candidate for United States Senator at the hands of the third party, was scheduled to be present and address the meeting, but was unable to come, having appointments elsewhere. Ex-Mayor George F. Rodgers heads the delegation from this county.

Equal Suffrage Forces Plan for Campaign.

SALEM, ORE., July 22.—With the view of carrying the county at the next general election in favor of the Equal Suffrage Amendment, which will then come to the people the second time for rejection or approval, an effective working organization with headquarters in the city has been organized in the county, and a strenuous campaign will be waged. Leaders of the movement, who assisted in perfecting the organization here and also in formulating the plan of campaign say that similar organizations have been formed in most of the other counties in the state, and that before long they will be in existence in every one of the counties. They are confident that this time the amendment will be passed.

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Catalogue and illustrated literature mailed free on application. Address: Registrar, Oregon Agricultural College, Corvallis, Oregon.
School Year Opens September 20th.

Hail Storm Ravages Crops At Bakeoven.

SHANIKO, Or., July 22.—Just as the farmers in the Bakeoven country were ready to harvest the most bountiful crops ever produced in that section, a terrific hail storm came on Saturday afternoon and destroyed about \$20,000 worth of standing grain. The area covered by the storm was four miles long by two miles wide. In some cases the loss to small farmers was complete. On the big Imperial stock ranch of R. R. Hinton the loss amounted to about \$10,000, and W. H. Moody's loss is \$3000. It was the most destructive hail storm that ever occurred hereabouts. Many chickens and small animals were killed. The farmers are turning hogs into the damaged fields.

Ship Cherries to New York.

BAKER, Or., July 22.—The cherry-growers of Halfway, Or., in Eagle Valley, this county, who recently shipped a carload of Bing cherries to New York, express much satisfaction over the outcome, as they realized an average of about \$1 a box. This is the first attempt they have made to invade the Eastern market with cherries, and their success is expected to lead to the shipment of many cars next years.

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Provisions for Comfort

Butcher shops and markets are the last places in which one would expect to find other than edible provisions. Yet, many of the better class are showing remarkable enterprise in providing for the comfort of patrons by installing electrical devices of convenience and utility. The increasing use of electric fans is especially noticeable since the introduction of

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