Oregon Agricultural College Is the Farmer's Friend

Page of News Notes and Interesting Articles Written by College Experts.

VIEW OF OREGON AGRICULTURAL COLLEGE AT CORVALLIS, OR. ITS SOLE AIM IS TO AID AGRICULTURISTS.

Points on Winter Care of Storage Batteries

AUTOMOBILE owners are reminded that their storage batteries may require some attention during the Winter, even though their machines are not in use. There is a likelihood of considerable damage being done to batteries that have been completely discharged, during freezing weather. The following practical points on caring for batteries were prepared by Professor R. H. Dearborn, head of the electrical engineering department at the Agricultural College:

"In storage batteries having an acid electrolyte," says Professor Dearborn, "slow chemical action is always taking place, gradually discharging the battery even though no current is being used. Hence the storage battery should be discharged occasionally even though the machine is idle in the garage. In order to keep the batteries in the best condition, they should be charged about every two weeks until they begin to gas or bubble freely. This may be done in the case of a battery used for lighting, starting and ignition service by allowing the engine to run while the machine is standing still. In electric vehicles the batteries may be charged by the means provided for the regular charging.

"In extremely cold weather it is particularly important that the battery should not be completely discharged, since the acid electrolyte of a discharged battery will freeze at a temperature of about 20 degrees above zero. On the other hand, if the battery is but three-fourths discharged, the freezing temperature is zero, if one-half discharged 20 degrees below zero, and if one-fourth discharged 60 degrees below zero.

"If owners who do not use their cars during the Winter months are unable to give the battery the occasional charge necessary to keep it in good condition, it would be wise to leave either the battery or the vehicle at a commercial garage where proper attention may be given it. It is not best for owners to remove electrolytes or put the battery out of commission without explicit instructions from the maker of the battery.

"Not all batteries require just the same treatment but all do require at times the addition of pure water to replace that lost by evaporation and to keep the electrolyte above the tops of the plate. All batteries further require that the energy used for useful work or wasted by leakage or chemical action be replaced by charging at more or less frequent intervals.

"The treatment suggested here will not injure any type of battery, but will help to keep it in good condition. Less care should not be given unless the manufacturer's instructions state that that particular battery does not require charging quite so frequently."

Clean Out the Ashes.

Thick layers of ashes about the oven absorb much heat that should be radiated, according to O. A. C. authorities, and so should be kept from accumulating in cook stoves. When an attempt is made to send a strong current of heat to the oven over ash-covered oven walls, a large part of the heat is absorbed and so far as present use is concerned, wasted. Since most ranges have sufficient protection by asbestos or other lining, the ashes should be cleaned from the top of the oven every morning, and the soot removed from the sides and bottom with considerable frequency. On the other hand, ashes accumulating in the bottom of the heater may serve the purpose of protecting the stove board from excessive heat and at the same time equalize the temperature by absorbing the excessive heat and releasing it later when the fire has died down. So long as the ashes are not reheated to the point of fusion it does them no harm, according to Professor Tartar, agricultural chemist at the College.

Oregon Station Leads in Dry Farm Legumes

"THE Oregon Experiment Station is the only one in the United States that has made a success of growing legumes on a practical scale under the extreme dry farming conditions," said Professor H. D. Scudder on his return from the International Dry Farming Congress, held in Wichita, Kan. "For this reason the Oregon exhibit attracted a great deal of interest, being continually surrounded by large crowds of people who asked many questions concerning the legume production.

"The field peas and alfalfa exhibited at this congress were grown at Moro and Burns, where the annual rainfall averages less than twelve inches. Other dry farm products were displayed from the experiment stations of this state grown under a lower rainfall than any other exhibits in the entire exposition.

"Since the purpose of the dry farming congress is to distribute knowledge gained by the experiment stations so that farmers can put this knowledge into practical use, it is expected that the legume exhibit of the Oregon station will do much to introduce and extend the practice of growing legumes on dry farms. The dry farming experiment station's work in Oregon is only about six years old, and the early and marked success in growing legumes for crop and for soil fertility purposes is one of its important achievements."

An address on "Dry Farming in Oregon and What the Oregon Experiment Station Is Doing With Dry Farming Legumes," was delivered at this congress by Professor Scudder, who is a member of the executive board of the congress.

Education for Life Work.

"However true 20 years ago may have been Andrew Carnegie's saying that the college graduate has no chance with the boy that swept the office, it is not true now," was President Kerr's statement to the Oregon Agricultural College student body. "Within that time," said he, "many changes have taken place in the ideals and policies of many colleges, whereby full recognition is given to the great truth that education should prepare for the real work of life. The principles of education for life were incorporated in the land grant college acts of Congress of 1862, but have been put into general effect only in recent years. By the terms of the acts public support was provided for these institutions, and whenever it becomes the duty of the people to support an educational institution it becomes at the same time the duty of the institution so to shape its policies that it will be of the greatest immediate assistance to the people, not looking wholly to the future to reward their endeavor. An educational institution thus supported must not be out of touch with the present needs of the individual nor ignore the needs of community life."

Bee Keeping in Oregon.

Many parts of Oregon produce enormous quantities of alfalfa and other plants which should be made to yield honey. At the present time farmers are making but little use of the nectar because many of them do not understand the value of methods of handling bees. In order to supply this information and thus stimulate the bee-keeping industry, the department of entomology at the Agricultural College has arranged a course of lectures and demonstrations on bee-keeping for the next regular short course, January 4 to 30. In addition to this work several practical bee-keepers of Oregon will show their methods of handling bees and some of the benefits of the practice. Aside from the value of the honey product, bees perform a great service on the farm in the pollination of fruits and meadow crops.

Need to Save Moisture for Crop-Production in Oregon

THE necessity of saving all the moisture for crop production in the dry farming parts of Oregon is shown by the fact that but about one-fourth of the scant rainfall is used by the growing crops. The remainder is lost through evaporation. In order to produce a bushel of wheat together with its straw, about 40 tons of water are required. One inch of rainfall on an acre of land contains about 113 tons of water. Thus, if an inch of rainfall were all utilized in growing the crop, it would produce about three bushels of wheat per acre, and 10 inches of rainfall, the average annual precipitation over the larger part of Eastern Oregon dry farming sections, would produce 30 bushels of wheat per acre. Yet the average annual production of wheat in Eastern Oregon is only about seven or eight bushels. Since moisture is the chief limiting factor it is evident that the chief reason for the lower production is that only a small part of the rainfall is used in the actual production of the wheat.

The importance of the process by which this moisture is lost is an important one, since the losses occur in practically no other. Evaporation from a free water surface at Moro amounted to nearly 12 inches in July, 1911, which is nearly a half an inch a day. From an acre of land the loss at this rate would amount to about 50 tons of water per acre each day. This daily loss more than equals the amount of water required to produce a bushel of wheat. For the entire month the evaporation was more than the entire annual rainfall and was sufficient to produce approximately 36 bushels of wheat.

The loss from the soil is varied and may be to a large extent controlled by cultural methods. Even if the loss through the soil is but half the amount from the water, it is very readily seen that this element of the dry farmer's crop unless controlled, soon evaporates into thin air. "In dry farming," says Professor H. D. Scudder, of the Oregon Experiment Station, "the very foundation of success rests upon the prevention of evaporation losses. Prevention depends very largely for success upon controlling the capillary action of the soil, which brings moisture to the surface.

Women College Students Do Practical Home Work

REAL work of well-ordered homes, not the makeshift kind, was performed by the young women students at the recent formal opening of the splendid new Home Economics building at the Oregon Agricultural College. And practical—why, nothing that was not practical was given any place whatsoever on the programme. The most advanced students baked bread. Not unsubstantial delicacies, but the real staff of life. True, the delicacies were prepare, and well prepared, too; but that was by students in the less advanced sections. The most proficient cooks were given no dainties except those that they could convert the bread materials into.

The bread was made into rolls according to recipes written on the blackboards, and was baked in brightly burnished ranges. It was then taken by other members of the class and served with butter and jelly to the visitors. And behold a miracle! The rolls, while still piping hot, were light and tender, and crisp from crust to crust. In plain English, the hot rolls were soft without being doughy; wholesome as palatable.

These results were secured with no more apparent effort than is required to turn out a fancy dessert, concoct an ice or paint a picture. One's prejudice against the term "domestic science" as being too pretentious for house crafts goes down before such evidence. Science it is, and science it had as well be called.

Work of like practical and scientific form was in progress from bottom to top of the big building. Laundering in the basement, food preparation on the first floors, garment-making on the second and third, and house designing and decorating on the top floor, were in active operation. Dean Calvin and her assistants received many compliments on the splendid showing, and are entitled to the thanks of the people for thus training the future home-makers of Oregon.

Dead limbs should be cut from the fruit trees before the leaves drop off, because they can be found more easily now than later, and if the work is put off it is more liable to be neglected. Give the fruit trees the best of care. It is the price of fruit on the farm.