

## REPORT OF THE COUNTY AGRICULTURIST FOR 1915

(Continued from last week.)

### CROP ROTATIONS. (Project.)

The lands of Crook county generally, excepting the narrow river bottoms, are composed of a desert soil with very little humus or vegetable matter in their composition. Yields obtained from fields of alfalfa which have been planted on new lands have proven unsatisfactory and the growing of other crops together with the addition of humus will increase the yields of alfalfa planted thereafter. One of the most necessary requirements for their improvement and for the growing of maximum crops is the addition of this humus. Through the use of barnyard manures, much of the necessary humus may be obtained but, in a country as new as this, few animals are kept by the average farmer and the manure is not obtainable. The value of crop rotation on more fertile lands and in older cultivated sections has been proven and is recognized by all. The production of crops which will return a profit and, at the same time, add vegetable matter to the soil will usually return a larger profit and allow the farmer to "make expenses" as he improves his soil.

In our reconnaissance of the agriculture of the county in 1914, we found that the majority of the farmers, in fact practically all of them, were growing one crop or class of crops on their fields continuously. The value of the rotation of crops was recognized and the practice recommended from the beginning of our work in the county but, because of the difficulty always encountered when a new man in a country undertakes to change old methods and because we are aware that comparatively few farmers could be influenced to follow our recommendations in this particular, the "rotation of crops project" was made fourth in our plans for this season's work.

Two farmers were this year influenced to start a rotation system by plowing clover sod and planting on the field a crop of potatoes. Several have stated that they would use a rotation system following this season's crop. Resulting crops from planting potatoes on clover sod, show an increase of 40 and 60 bushels of potatoes on these two fields.

On new lands in this section, potatoes make a very fair yield. Grain crops following make an increased yield over those planted on new lands or on grain lands. Field peas grow well, especially when planted in rows and cultivated. Clovers grown with the grains as a cover crop, make excellent growth the first year and good yields of hay the second year and potatoes grown on clover sod show increased yields. Sweet clover has this year been proven a profitable crop for this section and will make a good growth and yield of pasture or hay on new lands, and, for obtaining a fair to good crop, requires less work in preparation of the land for planting. Also, sweet clover will grow well on dry lands, which fact is not true of the other clovers. At least one cultivated crop should be included in a crop rotation.

With the above facts as our guide, it is not difficult to select the crops which may be used in a rotation in Crook county with profit. Rotations recommended are as follows: potatoes, grain crop used as a cover crop for clover, clover and potatoes; potatoes, grain crop, field peas, potatoes; or, sweet clover, potatoes, grain crop, clover; the latter being of especial value to the dry farmer. The first mentioned rotation will cover four years and last two three years.

There is no doubt but that any of these rotations will prove profitable in this county and where the clovers, especially sweet clover, are grown, larger amounts of humus will be added to the soils. In adopting one of these systems of crop rotations, it is not necessary to abandon the growing of alfalfa for, while one or more fields may be used in the rotation, one field may be left in alfalfa for four to eight years. During the first three to six years, however, the land will be greatly benefited by use of a rotation system similar to those here suggested and the larger yields of alfalfa thereafter obtained will well repay the farmer for postponing his alfalfa planting.

### ERADICATION OF JACK RABBITS AS A FARM PEST.

Work against farm pests was not included in the regular plan of work for this year as submitted at the beginning of the season, but because of the appearance of large numbers of rabbits and ground squirrels in the county, it was found necessary to take up this work as fully as practicable throughout the year. Both jack rabbits and ground squirrels (locally known as sage rats) have been known as a farm pest in this county for several years, but in 1914 they appeared in large numbers in a few localities for the first time and caused considerable loss. Early in 1915 very large numbers of jack rabbits appeared in practically every farming section and on the stock ranges and sage brush lands and destroyed great amounts of crops and wild grass. Complete data as to the damage done by this pest in Crook county during 1915 is being collected at present but has not yet been

obtained in full. In our opinion, the total damage to crops in this county for 1915 will be found to be between \$90,000 and \$100,000.

In a few localities destruction of this pest was undertaken in the spring of 1915 by holding community rabbit drives. As high as 1500 rabbits were killed in one of these drives, but this method did not seem to diminish the number of rabbits noticeably. No reliable information as to methods for the eradication of this pest during the summer or growing season could be obtained. Some poisoned oats and alfalfa were tried by farmers but without material success at this season of the year. We found a few farmers who were succeeding in killing many rabbits by the use of a mixture of strychnine and salt, some using a considerable amount of sugar in this mixture. Upon investigation we found that a considerable number of rabbits were killed through using this method and we recommended it for use with special caution to keep it where livestock could not reach it. Best kills seemed to be obtained by using two quarts of salt and one ounce of strychnine mixed dry. This mixture was placed in one half teaspoonful doses where stock could not reach it, usually placing the salt in a hole one inch in diameter bored into a two inch plank and placed in rabbit runways, or where they congregate to feed. As high as 200 rabbits per ounce of strychnine have been killed this summer through use of this mixture and many acres of crops have been saved in this manner.

In August we started an active campaign for the eradication of the jack rabbit as a pest in Crook county. The campaign was started through the writing of newspaper articles and through personal recommendation in talks with individuals and at farmers meetings. The county commissioners at their August meeting appropriated \$250 to assist in this work. This amount was duplicated by the state in confirmation with the law passed at the last State Legislature. The plan for work in this fight against the jack rabbit is to form community organizations in every inhabited section of the county, these organizations to undertake concerted action in the use of poisons or other methods recommended for the eradication of the pest. On November 18, Mr. R. A. Ward, U. S. Biological assistant came to Crook county from the U. S. Dept. of Agriculture in answer to several hundred letters received by the Department from farmers in Eastern Oregon, asking for assistance in eradicating the rabbit as a farm pest. He had intended working in the several counties of southeastern Oregon independently but, finding the work started and plans well under way for an active campaign of eradication, it was agreed between us that the work would be done co-operatively in this county in order that it might be shown what results can be obtained in a county if organized effort is used. Since November 22 we have held 26 meetings and organized 20 new community organizations. Four of these organizations already active have taken up the rabbit work. Three communities have organized for the rabbit fight without our being present, to follow instructions written to personal letters to them or obtained from articles which we have written for the local press. Six hundred and twenty two ounces of strychnine have been purchased with the county and state moneys to be distributed to organized communities. The formulae for mixing poisons and instructions for each community's work is given by us. Only organizations are furnished free strychnine and those which do the most effective work will receive a larger amount of free poison. Each community elects its "poison mixer" or "rabbit man" who has full charge of the work done in eradicating the rabbits. The mixture of poisons is under the supervision of Mr. Ward who has recommended for use in this section the following poison mixtures: Chopped alfalfa hay 16 pounds, sprinkled and thoroughly mixed with one ounce of sulphate strychnine in two gallons of water. This has proven an effective poison, but is more dangerous where livestock are present than are the poisoned oats which are prepared by mixing one tablespoon of gloss starch in one half tea cup of cold water and stirring it into one pint of boiling water to make a thin clear paste; one ounce of powdered alkaloid strychnine and one ounce of powdered baking soda and one tenth ounce of saccharine are stirred with the starch to make a smooth creamy mass. This is applied to 12 quarts of clean oats and mixed thoroughly to coat each kernel. This poison is also dangerous for livestock if placed in large quantities where they can reach it. If scattered sparingly along rabbit trails, live stock have not noticed it, but caution is always given that it is a very dangerous poison for livestock and the building of corrals for putting out baits and poisons are recommended. As this article is written, very little favorable weather for poisoning has occurred, the ground remaining unfrozen and natural feed for the rabbits being easily obtained. Mr. K. D. Houston, near Paulina, on De-

ember 14, put out two quarts of the poisoned oats about his hay stacks and the following morning we assisted in the picking up of 45 dead rabbits resulting. The Hemstad Valley Development Club put out 12 quarts of poisoned oats and obtained 249 dead rabbits from same.

We are of the opinion that a very large number of rabbits will be killed this winter through this organized work against them. The organization of communities will continue and every interested community will be assisted in every way possible. Strychnine is being purchased for them in 100 ounce lots from the manufacturers at prices considerably below the retail price of the poison. A full report of results obtained through this "rabbit" campaign will be given at its completion or in our regular report in 1916.

### FARMER'S EXCHANGE LIST.

In our travels about the country and in talks with farmers we found many farmers with livestock or farm products for sale and often on the same day discovered a man who wished to purchase livestock or products similar to those for sale by the first farmer. The value of a printed exchange list published monthly and giving a list of live stock and farm products was soon appreciated and taking the list of these articles from our notes taken in the field we published the first Crook county farmer's exchange list on January 22, 1915. Results obtained with this list were so satisfactory that second publication was made March 1st and the list continued throughout the year, being published the first of each month. The exchange list was mailed only to farmers who asked that they receive it. By June 1st the list was mailed to 355 farmers. On January 1st, 1916, there were 552 farmers receiving it. During the time of publication 146 farmers used the exchange list as a medium for buying and selling. An average of 13 farmers used the list each month.

Farmers using this exchange list were asked to report all sales or purchases from the list in order that we might have definite data to show that the list was of value as published. Few of the farmers reported sales when made but upon inquiry we, in nearly every instance, found that sales were made. A statement printed in large type asking that report of all sales be made was placed on the list each month. Expressions from those receiving the list indicate that it has been appreciated and that it is considered of value by the farmers. However, because of failure of those using the exchange list for advertising to report sales and because we would be unable to show a cash value for the exchange list as a result of this failure on the part of the farmer we have concluded to discontinue the exchange list after the issue of January 1st until farmers become interested and will report sales when made.

We know this exchange list has been a success and that it has been appreciated by farmers who have received it. The expense of publication has averaged \$14 per month and because of lack of written information as to sales made through this medium we have been unable to show with definite data that the list has paid. Through this medium, however, we have become acquainted with many farmers whom we should not have otherwise reached. We anticipate a large number of requests asking for a continuation of the publication.

### THE AGRICULTURIST'S WORK FOR 1916.

A large part of the work of the agriculturist for 1916 will be a continuation of the work of 1915. However, because of a better acquaintance with our county and because the farmers are better acquainted with our work, efforts for this season will be largely on the project plan. These projects allow more definite work along certain lines and will deal largely with organized communities.

Some of the more important projects as planned at this time are: Community and county organization of farmers; eradication of jack rabbits as a pest; eradication of ground squirrels, commonly known as sage rats, as pests; boys and girls industrial clubs; improvement of farmer's markets; duty of irrigation water; drainage of wet and alkali lands and use of best crop varieties.

Our work is co-operative and whenever we find farmers, and most especially a group of farmers, interested in any of the above named projects we shall undertake to spend the season with them assisting in the solution of their problems in every way possible. A large part of our work for this season will be done through and with community organizations.

### THE END.

Clean up and paint up. See Edwards—Adv.

### LEAVE SILVER LAKE.

(Silver Lake Leader.)  
The Strahorn railroad engineers and surveyors, with N. H. Bogue at the head, after making Silver Lake their headquarters for the past three weeks, moved camp last Friday to the Thompson valley, 12 miles southwest of town, having finished the preliminary survey from Lakeview to Silver Lake.

The American Bakery announces that it has begun to make ice cream and from now on will have it for sale at all times to hotels, restaurants and private families. adv

### ROAD CREWS ARE BUSY

Commissioner Blanchard Working Over a Hundred Men.  
(Crook County Journal.)

The recent storm has been of great value to the roads in Central Oregon. Many miles of road have been graded during the past two years, a large percentage of which was becoming somewhat cut up by the heavy traffic.

Quick to take advantage of the action of the elements Commissioner Blanchard ordered out every road drag in his territory, about twelve in number and every road that is in proper condition will be dragged just as soon as it is dry enough to permit first class work.

Incidentally the rains softened up the surface of the roads and makes improvement and grading easier in the Crooked river road and others that are now receiving the attention of the court.

There are now more than a hundred men in the employ of Commissioner Blanchard, rushing the work that is in hand, with a view of having it practically completed before the dry season starts.

### His Age Against Him.

"I am 52 years old and I have been troubled with kidney and bladder for a good many years," writes Arthur Jones, Allen, Kans. "My age is against me to ever get cured, but Foley Kidney Pills do me more good than anything I ever tried." Rheumatism, aching back, shooting pains, stiff joints, irregular action, all have been relieved. Sold Everywhere. adv.

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