

FARM AND ORCHARD

Notes and Instructions from Agricultural Colleges and Experiment Stations of Oregon and Washington, Specially Suitable to Pacific Coast Conditions

POINTS TO BE OBSERVED IN PLANTING FAMILY ORCHARD

Oregon Agricultural College, Corvallis.—"In starting a family orchard I hope that you will put out what may be called an ideal family orchard," said Professor C. I. Lewis, horticulturist of the Oregon Agricultural College. "I am sure that we can learn a very profitable lesson from past experiences with family orchards in this state. For one thing we have learned that the average family orchard is too large, and that it is poorly cared for and produces more fruit than can be used by the family, because it is often of very inferior quality.

"Orchards of this kind are often regarded as a menace to the fruit industry by those who depend upon fruit growing as a livelihood. They have caused much discussion concerning enforcement of inspection laws. I believe that we can establish family orchards much better than any we now have. In fact this is necessary. Some persons have gone so far as to say that the day of the family orchard is about past. Unless men who have these orchards in charge take better care of them they will be legislated out of existence. This would be a great misfortune and we cannot afford to prevent the growing of home orchards on Oregon farms. There are few things indeed that contribute so much to the delights of farm life as the home orchard.

"One way to improve the orchards and insure better care of the trees is to reduce quite materially the number of trees planted. If it is felt that it is necessary to have every variety you desire, fewer trees may still be planted and later four or five varieties grafted onto a single tree. Many varieties of fruit are very desirable for the home orchard, but an entire tree is not required to furnish enough of each variety for family use. By setting out fewer trees and using more varieties a supply of fresh fruit can be secured for the family for practically every month of the year. Having a small orchard encourages the owner to take better care of it.

"In shaping the trees they should be headed low, and since there is plenty of room on the farm the trees should be given plenty of space. Apple trees should be given at least 30 feet; pears, 25; sweet cherries, 35; walnuts, 50; prunes, 22; peaches and sour cherries, 20.

"The trees should be planted in the orchard a little deeper than they were in the nursery row.

"In this valley it probably makes little difference whether the trees are planted in late fall or in early spring. I have always felt that fall planting is perhaps the better, but I am not at all positive as to this. There are indications that in some years at least spring planting is safer in western Oregon, and we know that it is safer in eastern Oregon.

"In choosing varieties for the home orchard there are several points to be kept in mind. First, only varieties which are liked by the family should be selected. Personal preference should mean very much in choosing varieties for the home orchard. Second, varieties should be so selected that they would furnish fruit throughout the entire year. Third, varieties may profitably be chosen even though they do not grow to the highest degree of commercial perfection. Some varieties do not come up to the commercial standard of color, size and yet, because of their eating or cooking qualities, are very desirable for the family orchard."

HUMAN LIFE PROLONGED BY BALANCED DIETARIES

Oregon Agricultural College, Corvallis.—"Western nations eat mixed and fairly well balanced dietaries and have an average length of life of about forty-five years, while the more primitive Eastern people eat ill balanced diets of few articles of food and have an average life of about twenty-eight years," said Mrs. Lucile W. Robbins, extension lecturer, at the Oregon Agricultural College Farmers' Week course. "While diet is not the only factor involved, it is one of the most important factors. The mixed dietary of vegetable, meat and milk foods eaten by our own people supply evenly and with little surplus all the elements required to nourish the body and repair the waste. The rice ration, with its excess of carbohydrates and lack of protein, eaten so largely by the Chinese and Japanese, fails to furnish the variety of body materials needed for efficiency and long life.

"The most difficult problem is to supply the necessary proteins in the most available and economical form. The present high prices of meat and frequent unsanitary handling makes this source expensive and less satisfactory than formerly.

"Bread is a leading source of protein. In itself it is a fairly well balanced ration since it has a nutritive ratio of about one to six. Other vegetable sources of protein are the legumes, especially beans; but as beans are a highly concentrated food, they should be eaten in moderation.

"Dairy and cottage cheese are other good sources of protein. Their value in the diet depends upon their digestibility, but those who find no diffi-

culty can well afford to seek their protein supply largely from this source, leaving the higher priced meat source for the less strong. Another unfavorable feature of this supply is its tendency to rise in price with rising prices of meat. Eggs at moderate prices are good substitutes for the meat proteins. Here again the price is apt to vary with meat prices, but in the spring and summer the price is satisfactory.

"Cereals, legumes, cheese and eggs in varying combinations with different food elements, are the principal sources from which to seek substitutes of the too high-priced meats."

HARDWOOD ASHES RICH IN PLANT FOOD MATTER

Oregon Agricultural College, Corvallis.—Common hardwood ashes have a value of about \$5 in plant food, and \$3.50 in lime, according to investigations made by Professor H. V. Tartar, agricultural chemist of the Oregon Agricultural College. Their physical effect on the packed and acid soils of certain districts is also very beneficial. The almost prohibitive high price of lime to correct soil acidity should lead the Willamette Valley farmer to use ashes extensively for that purpose.

"Wood ashes are valuable fertilizers for three reasons," said Professor Tartar. "For the valuable plant foods they contain, for their effect in neutralizing acids in soils, and for their action on the physical properties of the soil.

"The plant foods in ashes are potash, phosphorous and lime. An analysis of 97 samples of hardwood ashes gave the amount of each as follows: Potash, 110 pounds per ton; phosphorous, 38 pounds per ton, and lime, 632 pounds per ton.

"In order to get this value from ashes it is necessary that they be protected from rain, as most of the potash is soluble in water and is lost by exposure. After leaching, the potash content of ashes was found to be 22 pounds per ton. The ashes should be stored in a dry place until applied to the soil.

"On soils that are poorly drained and acid, ashes have an excellent effect. The land becomes more amenable to culture, is readily kept in good tilth, retaining its moisture in dry seasons and favoring drainage in wet seasons.

"Lime is essential to plant nutrition, and none of the higher plants can reach maturity without a normal supply. Some of these plants, such as clover, beans and alfalfa, require so much lime for their development that they are called 'lime plants.' The potash and phosphorous are likewise indispensable to plant growth, and ashes offer a cheap and convenient source of supply."

ADVANTAGES OF CLIPPING COW'S UDDER QUESTIONED

Oregon Agricultural College, Corvallis.—Does clipping the long hair from the udder and flanks of the dairy cow reduce the amount of dirt that falls into the milking pail? The question is an important one for every dairyman who is producing market milk to consider, as it is well known that the number of putrefying and disease germs is increased with the increasing amount of dirt, hairs and manure that drops into the milk. Whatever keeps the dirt out keeps the bacteria out, so that the milk is cleaner, more wholesome and keeps its natural state longer.

"It was quite recently thought that clipping the hairs from that part of the cow's body that is directly above the milking pail was a great aid to cleanliness, and almost a necessity in the production of sanitary milk," said Professor Graves, head of the Oregon Agricultural College Dairy Department. "But the still more recent experiment conducted by the New York Experiment Station indicates that it has very little effect on the bacterial content, tending to increase rather than diminish the number. The tests were made by taking samples of milk before and after clipping under conditions as nearly the same as possible with the single exception of clipping. While the difference in the bacterial content of the two samples was not enough to base final conclusions on, it was sufficient to indicate that if proper sanitary methods are observed in handling the cows and the milk, clipping is not essential to the production of the highest grade of milk."

Common Form of Insanity.

A party of Clevelanders entertained some holiday visitors last week, and having showed them everything interesting in Cleveland proper they had to take them out to Newburg for a view of the asylum. The superintendent was in a genial frame of mind and he conducted the bunch personally.

"Here is a queer case, ladies," he said, pausing at a particular cell. "This man has the delusion that he possesses the motive power that runs the universe. He is perfectly harmless, but he actually believes that without him the world would not move. Strange notion, isn't it?"

"Why, not at all," exclaimed one of the women. "My husband has the same idea and he always has had it. Is he crazy, too?"—Cleveland Plain Dealer.

WHAT TO DO WITH LEFTOVERS

Hash More Palatable, Though Less Economical, Than Meat Brought to the Table Cold.

I suppose that in most households a dish of hash comes to the table at least once a week. Hash is very nice, and many people prefer it to cold meat. But it is one of the least economical things going, because half a pound of meat cuts up into very little mince, and people take a larger helping of done-up things than they would of cold meat in slices. Therefore, if you want to be economical, don't have hash.

But, if you are going to have it, you might as well make it properly. Do it in the following way and it will be perfectly delicious:

Remove all fat and gristle from your meat. Chop it by hand, or put it through a machine. If you use a meat chopper you must put a crust of bread through afterwards, in order to clean out all the little bits of meat which have stuck to the works. If you don't do this you will leave quite a lot of meat on the knives, and it will be all wasted.

Melt one ounce of butter in a pan. When this is melted, stir into it one ounce of flour, and add half a pint of stock or milk. Cook the mixture for ten minutes, stirring it very carefully all the time and making sure that it does not turn lumpy. When it is done it will be a very thick sauce.

Take the pan off the fire, stir the minced meat into it and flavor the whole with parsley, herbs or tomato sauce.

Put the pan back on the fire, and stir the contents till it is quite hot. Don't let your mince come to the boil on any account though, or it will be spoiled. Take it off, turn it out on a hot dish, and decorate it with snipets of toast. It will be firm enough to stand up in a pile. A good cook makes her dishes nice to taste, pretty to look at, and easy to serve and enjoy.—Exchange.

CURRY SAUCE WORTH TRYING

Approved Recipe, Not Especially Difficult to Make. Will Be Found to Give Satisfaction.

Curried meats and vegetables are delicious. Here is a recipe for a good curry sauce that is not especially difficult to make. It can be served with left-over chicken, cut in little strips, and heated in the curry, then put on a platter with a ring or mold of hot rice. It can be served with left-over mutton or lamb, cut in dice or thin slices. It can be served with several vegetables. To make it, slice a medium-sized onion thin and fry it in two ounces of butter. When it is brown add a dessertspoonful of curry powder. Let it cook a minute or two and then add a cupful of beef gravy. Dish gravy from roast beef or beefsteak is the best sort, but if this is not at hand beef stock will do. Add also twelve whole cloves, a clove of garlic, a strip or two of lemon peel, a half teaspoonful of salt, two bay leaves and a teaspoonful or two of tarragon vinegar. Cook this gently for half an hour and then strain it.

Baked Apple Pudding.

To 12 sour apples use one pint of bread crumbs, four or six tablespoons of sugar, two ounces of butter and two eggs. Pare, core and cut the apples and put them into a stewpan with the sugar and four or six tablespoons of water; cook until tender and stir in the butter and well beaten eggs. Coat the bottom and sides of a well buttered pie dish thickly with bread crumbs, put a few pieces of butter on top of the apple mixture, which should fill the pie plate. Bake gently for about three-quarters of an hour, keeping the dish covered with greased paper to prevent the surface from becoming too brown. Uncover and brown.

Rice and Raisin Pudding.

Soak the raisins (about a handful) in a little warm water for an hour and then drain. To one cup of boiled rice, cold or hot, add the yolk of one egg, one tablespoonful of sugar, one teaspoonful of vanilla extract and two cups of new milk. Mix thoroughly and bring to the boil, simmer gently until it thickens. Make a meringue of the white of the egg whipped with a tablespoonful of sugar, spread upon the pudding and set in the oven to brown. This is good warm or cold.

Olive Oil for Shoes.

Patent leather shoes may be kept in good condition during the cold weather by rubbing them with a little olive oil and polishing with a piece of Canton flannel. This will keep the leather from cracking and the shoes will always appear new.

Makes a Good Gravy.

Fry a few slices of breakfast bacon, mix a large spoonful of flour with the dripping, add a pint of milk and as much water. Stir until smooth and thick. This makes a good gravy.

New Map of Balkans



AS is often the case with individuals so it is with nations. Some will make the greatest efforts toward the realization of some end, and in return get the least recompense in comparison with others who deserve less. Bulgaria is a splendid example of a people that in the Balkan war accomplished the most, but got the least. Whose fault it was history will not fail to tell.

It is not officially shown that in the war with Turkey, Bulgaria sent against the enemy 720,211 men and 1,532 guns, facing in Thrace the bulk of the Turkish army, consisting of 757,980 men and 1,390 guns. Servia had mobilized, on paper, 201,115 men and 120 guns, facing a Turkish force of 90,000 men with 120 guns. Greece raised some 80,000 men against the Turkish 5th division, consisting of 20,000 men and 63 guns. Montenegro had 40,000 soldiers operating against the Turkish third division, consisting of some 26,000 men and 34 guns. Bulgaria claimed 69,500 square kilometers (27,800 square miles). That left for Greece 29,500, or with Crete, 38,113 square kilometers (14,800 or 15,245 square miles); for Servia, 22,400, and for Montenegro 6,800 square kilometers (8,960 and 2,760 square miles).

Division of Territory.

Servia, however, repudiated the antebellum treaty with Bulgaria, and Greece refused to arbitrate its differences with the same nation. This led to the second war, at the end of which, by the Bucharest treaty, Bulgaria was despoiled of the fruits of its signal victories and gigantic efforts in the struggle against the Ottoman empire. This is approximately the territorial division sanctioned by that treaty:

1. Bulgaria before the war had 96,000 square kilometer (38,000 square

600 square miles), with 650,000 inhabitants.

5. Roumania before the war had 131,000 square kilometers (52,400 square miles), with a population of 6,850,000 inhabitants. After the war it got 8,000 square kilometers (3,200 square miles), with 260,000 inhabitants, and now has all told 138,000 square kilometers (55,200 square miles) and a population of 7,111,000.

7. European Turkey before the war had 170,000 square kilometers (68,000 square miles), with 6,650,000 inhabitants. After the war it was left with 25,000 square kilometers (10,000 square miles) and a population of 950,000.

8. Albania, the newest Balkan nation, will contain some 55,000 square kilometers (22,000 square miles), with 950,000 inhabitants.

Map is Temporary.

Such is the map of the Balkans at present. That it is ephemeral every one who knows the situation clearly will agree. It is changing every day. Turkey is recapturing a new island on the Aegean nearly every week. It is a question whether even Samos will not be taken back. Enver Bey has recently said that the Ottoman army will not rest until it has regained all the territory necessary for the preservation of the Ottoman empire.

One thing is certain, and that is that Bulgaria will never rest within the present artificial limits. The new territory it obtains is very small and not a rich one. Only Xanthi, Gumuldjina and Dedegatili are important acquisitions in Thrace. In Macedonia it gets insignificant cities like Strumnitza, Neurocope, Petrich, Djumaya and Bansko.

The new land is a good tobacco country. At Gumuldjina and Xanthi is obtained the best tobacco for cigarettes. Djumaya tobacco is the only



Balkan Boundaries as Arranged by Recent Treaties. Heavy Dotted Lines Show Frontier; Light Dots Show Old Limits.

miles), with 4,400,000 inhabitants. After the war it got only 26,000 square kilometers (10,400 square miles), with 920,000 inhabitants. Subtracting the 8,000 square kilometers (3,200 square miles), with 260,000 inhabitants, which Roumania seized, the total area of Bulgaria is 114,000 square kilometers (45,600 square miles), with 5,060,000 inhabitants.

2. Servia before the war had 48,000 square kilometers (19,200 square miles), with 3,000,000 inhabitants. After the war it got 46,000 square kilometers (18,400 square miles), with 1,610,000 inhabitants, or a total of 94,000 square kilometers (37,600 square miles), with a population of 4,550,000.

3. Greece before the war had 65,000 square kilometers (26,000 square miles), with nearly 3,000,000 of people. After the war it got 55,000 square kilometers (22,000 square miles) and 2,120,000 inhabitants, or a total of 120,000 square kilometers (48,000 square miles), with 4,740,000 inhabitants.

4. Montenegro before the war possessed 9,000 square kilometers (3,600 square miles) of land, with 300,000 inhabitants. After the war it obtained 10,000 square kilometers (4,000 square miles), with 350,000 inhabitants, or a total of 19,000 square kilometers (7,300

other rival in the field. American and English companies are exploiting it. It is now hoped that with the splendid commercial facilities Bulgaria offers to foreign capitalists the tobacco industry will prosper all the more.

Bulgaria, old and new, is rich with various minerals, especially copper, zinc, tin and coal. The syenite granite is found in abundance also. The Raylogue district of the newly acquired land is famous for its scenery, mineral waters, forests and healthy climate. Elle-Teppey, the highest peak of the Perrin mountains, is known as a second Jerusalem and Mecca. Thousands, both of Christians and Moslems, climb it every year. On a clear morning Saloiki bay can be seen from the peak.

Winning Recognition.

"To gratify an ambition there's no telling what the average woman will do."

"What have you run across now?" "Here's a story of one in jail and accused of a horrible crime."

"Did she accomplish what she was striving for?"

"Sure! Every one of the fourteen newspapers in town refer to her as a 'prominent society woman.'"