

SALTING AND WORKING.—Fine butter salt (the use of coarse, lumpy salt is not advisable) at the rate of one-half ounce to one ounce to the pound of butter may be sprinkled on the granular butter in the churn or on the worker. (Some persons salt with strong brine.) If salted in the churn, a portion or all of the working may be done by revolving the churn slowly after allowing the salt time to dissolve. Expert buttermakers may work butter once. Others will succeed better by working twice. Work by pressure and avoid a sliding or grinding motion. When the "streaks" have disappeared and the butter is firm and waxy in texture, and the excessive moisture is removed, it is then worked sufficiently.

PRINTING AND PACKING.—For immediate use, the "print" of various sizes is a desirable package. It should be wrapped in good parchment butter paper. The square package, lined with paraffine wax, is best to pack butter in for export. The butter should be solidly packed in the box, then be covered with butter cloth or parchment paper.

MARKETING.—Do not trade butter for dry goods and groceries at (for you) starvation rates of exchange. If possible, secure customers in a village, town or city, and send them your best make regularly. Selling to a reliable commission house or groceryman (for cash) is a good way to market. Have a brand for your butter and sell none but the best with your brand on it. If a churning goes wrong sell it for what it is worth and not on account of its reputation.

THE GROWING AND MARKETING OF ALSIKE AND RED CLOVER SEED.

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(Prepared for the Department of Farmers' Institutes.)

Alsike.

Alsike clover is regarded as a cross between the red and broad-leaved clover and white or Dutch clover. It was first introduced into Britain from the south of Sweden about fifty years ago, and began to attract attention in this province about twenty years later as a valuable crop for its seed, which commanded a high price. It was also discovered that Canadian seed was superior to that imported into Britain from any other country. The plant is a perennial, but in this country it is generally treated as a biennial. It will grow upon almost any kind of soil, but the best results will generally be obtained when grown on clean, rich, clay loam, well underdrained. I wish to emphasize the word "clean," as this crop differs much from red clover, as it makes a very poor cover crop to smother back any weeds that may grow in the land. Therefore, it is necessary to have the land as clean as possible to produce the highest grade of seed. The farmer should be careful to get the best seed possible to sow; it should be large and plump, free from all other kind of seed, and particular care should be taken to see that it contains no white clover, as much of the seed offered for sale has a considerable mixture of the latter. So far, no machinery has been invented that will wholly separate those two kinds of seed, being of the same shape, weight, and nearly of the same size. The seeding is usually done in the spring, sowing the seed along with

some kind of grain, or early in the spring on fall wheat or rye, then harrowing it in with a light harrow. It will be found an advantage to keep stock off the fields after harvest as it usually does not get a very heavy top the first season. The following spring the land should be rolled as soon as dry.

When the clover is in full bloom, it will be found profitable to go through the fields with a sharp scythe and cut off the heads of any timothy or high growing weeds that may be found. The proper time to cut the crop is when a majority of the heads will strip easily of the stalk between the finger and thumb. A table is attached to the mower, covered with a false bottom raised a few inches, made of strips to allow the shelled seed and chaff to fall through to the true bottom below, while the bundles are being raked off by hand. When the space below the slats is filled up the chaff and seed are removed into bags. The seed obtained from this chaff will be found to be of the finest quality. After the crop is cut it should be allowed to lie until thoroughly dried. If it should get wet with rain, do not attempt to turn the bundles as the heads will fall off the stalks and the seed will be lost. The wagon rack used for hauling to the barn should be closely covered with boards or strong canvas. The bundles should be picked up carefully with barley forks and placed on the wagon. Do not attempt to use a horse-rake to put it in win-rows or the bulk of the seed will be shelled off and left in the field.

If two or more qualities of seed are grown, such as may result from winter-killing which allows weeds to grow up in such places, it will be found advisable to harvest the crop in such a way that the different qualities can be threshed separately. The reason for this will be obvious, as the best seed will be easily cleaned if the foregoing conditions have been attended to, but where it has been winter-killed, foxtail and other weeds are likely to grow up amongst the clover. It will be found much easier to clean the foul seeds out of a few bushels of seed than clean the same amount of foul seeds out of the whole lot. When the seed is cleaned and nearly all of the same quality, it should be all placed in a pile upon the floor and thoroughly mixed before offering it for sale. But if one part is pure and another mixed with foreign seeds, such as white clover or hulled timothy, these lots should not be bulked together, but each offered for sale upon its merits. If mixed the whole lot will likely be reduced a grade or two and the price correspondingly lowered. The ordinary fanning-mill will generally be found to clean seed sufficiently well for market, providing it is properly managed. Plenty of wind should be used, with a top wire sieve 18x18 meshes to the inch, and a bottom wire screen 24x24 meshes to the inch. These are the usual sizes used. Some years the seed may be larger or smaller and it will be found necessary to vary the size of mesh in the sieves and screens. In many sections of the country, there are men who make a specialty of cleaning, and as a rule the best results will be obtained by having it cleaned by them. The ordinary farmer may do

just as good a job, but experience is worth a good deal in cleaning alsike seed. Self-catches on the land that has been in seed the year previous, may give a good crop, but as a rule, self seeding should be avoided as white clover is pretty sure to get into the land and destroy future crops of alsike. As soon as the first crop has been harvested, the land should be plowed, as it does not produce much aftermath. To keep it for a second crop of seed the following year, usually results in a failure.

Common Red Clover.

Common red, or broad-leaved clover is a native of Europe. It is supposed to have been introduced into England from the Netherlands about the time of Queen Elizabeth, but it was not until the close of the last century that it found its way into Scotland and became generally cultivated in Britain as a forage crop. The plant is perennial, but in this country is generally treated as a biennial. Owing to the severe frosts the plants usually die at the end of the second year. Up to about fifteen years ago there was but little trouble experienced by the farmers of this province in cutting the first crop for hay and obtaining a good crop of seed from the second cutting, but unfortunately this cannot now be done owing to the introduction of the clover seed midge, which was discovered in the State of New York in the year 1877 and in this province in 1882, since which time it has spread over the entire clover growing section causing great loss to the farmers who were engaged in raising seed. The ravages of this insect can be guarded against to a considerable extent and a good crop of seed secured by pasturing the clover fields and turning off the stock from the first to the fifteenth of June, according to forwardness of the season, and earliness or lateness of certain sections of this province.

Red clover is so well known that to go into a detailed account of the harvesting and threshing of it would be superfluous, but one matter I would like to impress upon my fellow farmers is the danger of purchasing the seeds of weeds along with clover seed, that were unknown to the majority of farmers a few years ago. Such weeds as the curled dock, English plantain, ox eye daisy. These seeds, with the exception of the latter, are difficult to clean out of red clover. Fortunately, large sections of the province are free from them, but farmers cannot be too careful in procuring seed to sow on their farms.

Marketing.

As to marketing, I would say that Britain, and the continent of Europe, are the markets for our surplus alsike and the best sample of red clover. The margin between the price paid the farmer here, and that obtained in London or Liverpool is comparatively small when the amount of money invested and risk involved is considered. Usually the farmer will do as well, or better, with some local dealer in his own section than looking for a market a distance from him. If a united effort were made by all farmers growing either red or alsike clover seed to produce only the best, and in that way improve the standard of the seed exported, a better demand would be created and better prices obtained for Canadian clover seed.

BOOKS AND BULLETINS.

Nearly all "Bulletins" mentioned under this heading can be obtained free on application to the Directors of the respective Stations or Colleges. In case of doubt as to address write to FARMING.

Relative Digestibility of Cheat and Clover. Bulletin No. 47, Oregon Agricultural Experiment Station.

Composition of Commercial Fertilizers. Bulletin No. 49, Maryland Agricultural Experiment Station.

Prunes in Oregon. Bulletin No. 45, Oregon Agricultural Experiment Station. 128 pp., profusely illustrated.

Kansas Weeds: Their Fruits and Seeds. Bulletin No. 60, Kansas State Agricultural College. Profusely illustrated.

Lime and Draining. By H. J. Wheeler. Bulletin No. 46, Rhode Island Agricultural Experiment Station, Kingston, R.I.

A Record of the Sydney Stud Sheep Sales and Annual Sheep Show. Edited by Robt. McMillan, Sydney, N.S.W. Price 1s.

Some Strawberry Insects. Bulletin No. 42 of the Florida Agricultural Experiment Station. By A. L. Quaintance, Assistant in Biology.

The San Jose Scale in Ohio. Being Bulletin 81 of the Ohio Agricultural Experiment Station. By F. M. Webster, Entomologist. Illustrated.

Turnips. Bulletin No. 84. Also, Japanese Plums. Bulletin No. 85, Alabama Agricultural Experiment Station. From F. S. Earle, horticulturist.

The Soy Bean as a Forage Crop. Farmers' Bulletin No. 48, United States Department of Agriculture. By Thomas A. Williams, assistant agrostologist.

Methods of Curing Tobacco. Being Farmers' Bulletin No. 60, United States Department of Agriculture. By Milton Whitney, Chief of Division of Soils.

The Worst Weeds of Wyoming; and Suggested Weed Legislation. By the Botanist, Wyoming Experiment Station, Laramie, Wyoming. Being Bulletin No. 31.

Field Experiments with Wheat. Comparison of Varieties and Cultural Investigations. Bulletin No. 82, Ohio Agricultural Experiment Station. By J. F. Hickman, Agriculturist.

More about the San Jose Scale. A Sweet Potato Pest. Regarding Carbon Bisulphide Insecticides and Pumps in General. Bulletin No. 86, Alabama Agricultural Experiment Station.

The Maintenance of Fertility and Field Experiments with Fertilizers. Being Bulletin No. 80, Ohio Agricultural Experiment Station. By the Director, Vice Director, and Agriculturist.

The Infection of Milk by Microbes. A lecture illustrated by 36 magic lantern slides. By E. Castel, secretary of the Dairymen's Association of the Province of Quebec. 20 pp. With many illustrations showing magnified views of the bacteria peculiar to milk and milk operations and processes. Published also in French. From the author, St. Hyacinthe, Quebec.

Lamb Feeding. Fattening Range Lambs—Raising Lambs on Separator Milk. Hog Cholera and Swine Plague. Diseases of Sheep Observed in Iowa. Quick and Slow Ripening of Cream. Being Bulletin No. 35 of the Iowa Agricultural College Experiment Station. The above articles are all by the officers of the station. The bulletin comprises 108 pp., and is profusely illustrated.

The Veterinary Profession: Its Relation to the Health and Wealth of the Nation, and what it offers as a Career. Comprising several short articles by officers of the University of Pennsylvania and alumni of its Veterinary School. 88 pp., profusely illustrated. This is a most beautiful publication, and will, no doubt, be very interesting to every young man looking forward to a career in veterinary practice. From Professor E. M. Michener, V.D.M., secretary of the Department of Veterinary Science, University of Pennsylvania, Philadelphia, from whom copies may be had on application.