

Home-grown Clover Seed Saves Money

Second Crop gives Better Returns Harvested for Seed than Cut for Hay

Farmers pay out much money for red clover seed which they might well grow themselves. The second crop is often pastured when it would pay much better to allow it to ripen for seed. The first crop should be cut very early, which will ensure better quality of hay, and give the second crop, from which the seed is to be taken, a better chance to get started. The field where the clover is thickest should be kept for seed. It does not matter if some timothy or other grasses be present, as the clover aftermath is but little affected by the other grasses in the second crop, which usually make a very light second growth. It often happens, too, that a second crop of clover that looks thin and scarcely worth cutting will produce a very profitable crop of seed. Nine acres of a 44-acre field of second crop, which was being kept for seed in Quebec, appeared too thin to be worth harvesting, but, though it gave only half a ton of clover hay to the acre, nevertheless, yielded 141 lbs. of seed per acre. At say, 20c per lb. this would be worth about \$28.00, whereas the half-ton of second-crop hay would be of little value. Had the field been pastured, much of the clover would have been tramped down and the amount of food really obtained by the stock would have been small indeed.

It has been clearly demonstrated that home-grown seed gives best results. Last year on a number of the Conservation Commission's illustration farms, home-grown seed and seed purchased from seed merchants were sown side by side in the same field and under the same conditions. In every instance, the stand from the home-grown seed withstood the winter much better. In some cases the crop from the purchased seed was a complete failure, while that from the home-grown seed came through the winter in good condition.

Now is the time to prepare for the seed crop by cutting the crop very early.—F. C. N.

(A later article will describe methods of harvesting and threshing.)

Canadian farmers should try to keep on their farms every heifer calf of present or prospective breeding age. Don't sell the heifer calves for veal. Keep them to raise more cattle. They are needed in this country.

Wood block paving, tried and discarded in many cities of the United States thirty years ago, is now coming back into marked favour, due to improved methods of treating and handling the blocks.

TO NEWSPAPERMEN

To further public interest in conservation subjects, the Commission will lead to Canadian journals the cuts used in this bulletin.

As there are only a limited number of these cuts, delays are sometimes unavoidable, but orders will always be filled as soon as possible after receipt of application. It is requested that cuts be made use of at the earliest possible date, and returned promptly, enclosing note showing by whom sent. We shall be pleased to receive copy of publication in which the illustration appears.

When ordering, please fill out and forward us this coupon:

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ROAD DRAINAGE

The first and prime essential of any good road is drainage—surface, sub-surface and side drainage. When finished, the road must shed water. To do this the road must be crowned from $\frac{3}{8}$ to $\frac{1}{2}$ of an inch to the foot, depending on the wearing surface, and must have an impervious or waterproof covering. There must be an unimpeded slope from the crown to the gutter or to the side ditch. The gutters or side ditches have at least $\frac{1}{10}$ of a foot fall per 100 feet, and, if they are earthen ditches, they should have $\frac{1}{2}$ foot per 100 feet, and free drainage at frequent intervals into natural creeks, channels or, in the case of a city with a sewerage system, into the sewers.

In order to drain away the sub-surface water and prevent it from softening the foundations, it is well to lay two lines of tiles.

The second essential, which is an essential of any structure, is a good foundation, and this is especially required for roads where the loads are concentrated on such small areas.

Because macadam roads are more expensive than gravel roads in first cost, they should be built very carefully. The materials in the order of their excellence are—trap rock, tough granite, chert, tough limestone, ordinary limestone, tough sandstone.—W. J. D.

CONSERVATION OF WATER IN CONNECTICUT

A practical illustration of water conservation is in progress in the Naugatuck valley in the state of Connecticut, where thirty-five large manufacturing concerns have appointed a committee to carry out the project. Three storage dams are to be built at a cost of \$1,000,000 and the reservoirs thus created will store 23,571,920,000 gallons of water. It is thought that each town and city along the entire valley will co-operate in financing this great development, the basic idea being to provide a sufficient amount of water to operate the numerous manufacturing plants on the river all the year round. The plan to finance the undertaking will, if carried into effect, produce sufficient funds to develop the project.—L. G. D.

ROAD MATERIALS

Paving brick, concrete, crushed stone of various kinds, limestone, trap rock, granite, sandstone, chert, crushed gravel, tank gravel, sand and loam mixed with various bitumens, such as crude oils, coal tar and asphalt are used to make good roads or to improve them to some extent.

The choice of the material for any particular stretch of road will depend upon, first, the character of traffic it must sustain, second, the taxable valuation of the assessable property, third, the most available suitable material.

Where auto and horse vehicle traffic is heavy, as it usually is around larger cities, creosoted wooden block, brick block, concrete and bitumen-bound macadam are the pavements to be selected. Property values will nearly always warrant the expenses under such circumstances.

The building of good roads requires intelligent use of any of these materials. To use them carelessly or with no knowledge of how to use them is worse than wasting them, because the taxpayers are defrauded, the road will not wear or give satisfaction, and the materials out of which the road was constructed are discredited.—W. J. D.

C. P. R. REORGANIZES FIRE PROTECTION STAFF

The Canadian Pacific Railway has recognized the local administration of the special fire patrols on its western lines, required by the Board of Railway Commissioners, by placing the matter under the direction of its Forestry Branch, of which Mr. R. D. Prettie is Superintendent, with headquarters at Calgary. The new arrangement affects the handling of fire protection work on all lines of the C. P. R. running through forest sections west of Fort William, Ont. The C. P. R. Forestry Branch has previously been closely associated with fire protection work, through the assignment of inspectors, but the new arrangements will greatly increase its scope by giving it administrative control as well. The new plan is altogether logical in an age of specialization.—C. L.

Treaty to Protect Migrating Birds

Action of U. S. Senate shows American Sentiment Solidly in Favour

The early consummation of the proposed treaty for the protection of all birds that migrate between this country and Canada is seen by John B. Burnham, president of the American Game Protective Association, in the adoption on May 12th by the United States Senate of a \$50,000 appropriation for the enforcement of the new federal law for the protection of migratory birds.

Very shortly, I hope, there will come before the Senate for ratification a treaty providing protection for the birds that migrate between this country and Canada," said he, in discussing the Senate's action. "For nearly a year now the organization I represent has been laboring on this matter. Had the appropriation been defeated it would probably have sounded the death-knell of the treaty. Now, there is good prospect of completing the campaign for protection of our migratory birds, covering the entire line of flight of most of the species, which was begun with the organization of the American Game Protective Association some two and one-half years ago.

"The Senate's action in the present instance," said Mr. Burnham, "is a victory of the people. Wage-earners, farmers, the everyday citizen, had just as much at stake as the sportsmen, for the protection of our insect-eating birds was in jeopardy.

"Victory by the overwhelming vote of 45 to 17 would seem to settle once for all any contention there might have been regarding the solidarity of the sentiment in this country with regard to the placing of the protection of our migratory species in the hands of the Federal Government.

FOREST FIRE PROTECTION STILL INADEQUATE

The numerous and, in some cases, serious forest fires, which occurred throughout eastern Canada in May, prove that, while much is being done by the various provincial governments and other agencies, in forest fire protection, the provision is still inadequate in case of an extended drought. The strict enforcement of the permit system for the burning of settlers' slash would very materially reduce the number of fires. It is, however, hardly to be expected that, with the vast areas of forest lands, and the relatively small population to bear the burden, adequate fire protection can be secured on cut-over forest lands so long as practically no requirements are imposed upon lumbermen as to the disposal of inflammable debris resulting from woods operations. The policy adopted by the British Columbia government in this matter is the most progressive of any in Canada.—C. L.