

Controlling Fires on Settlers' Clearings

Admirable Working of Permit System, Wherever It Has Been Applied

The permit system of regulating settlers' clearing fires is now in effect throughout nearly all the forest regions of Canada. Last year, legislation to bring it into force was adopted in Ontario, Manitoba and Saskatchewan. This year, the new Fire Act in New Brunswick makes the plan effective throughout that province. In Nova Scotia, Quebec and British Columbia, the system has been in effect for years. Alberta is now the only forest province without it.

Wherever the setting out of settlers' clearing fires has been regulated under the permit system, with an adequate staff for its enforcement, it has worked wonders in reducing the forest fire losses, with no real setback to agricultural development.

The disposal of logging slash by fire, under control, is a problem closely related to that of slash resulting from settlers' clearing operations. In various parts of Canada, the safe disposal of logging slash is receiving increased attention, due to the rapidly increasing stumpage value of timber and to the realization that our forest resources are by no means inexhaustible.—C.L.

HOW TO SAVE ELECTRICITY

Tungsten lamps give about three times as much light as carbon lamps for the same amount of electric energy consumed. They should, therefore, be used wherever possible. The reason why carbon lamps have not disappeared altogether is that they are more rugged than those with tungsten filaments and are, consequently, more suitable as portable lights. They are also used to advantage in cellars, storerooms and other places where little light is required and at infrequent intervals.

The following table shows the efficiency of the tungsten over the carbon lamps:

	Carbon	Tungsten
Watts (power required),	50	50
Candle Power (horizontal)	16.8	48.1
Lumens (light in all directions), 174	476	

—L.G.D.

FOREST STUDIES IN N. BRUNSWICK

Prof. R. B. Miller, of the University of New Brunswick, will be employed jointly this summer by the New Brunswick Forest Service and the Botanical Division of the Dominion Department of Agriculture, in making a study of forest tree diseases in New Brunswick.—G.H.P.



CLEARING LAND WITHOUT DESTROYING ADJACENT TIMBER. Col No. 171

The lower picture shows the slash resulting from clearing operations, the same area after the slash has been burned under permit from the Ontario Forestry Branch. Precautions were taken which have preserved from destruction the adjoining valuable pulpwood forest. At present prices for pulpwood, settlers in forest sections possess an extremely valuable resource in the timber on their lands.

Factors in Production

7. Why Not Buckwheat?

Convenient and Valuable Substitute for Wheat

Try a field of buckwheat this year.

It is a wheat substitute and will be needed more than ever next winter.

Buckwheat will be sure to have a more important place in the human diet. It is useful for feeding purposes, especially for poultry.

In addition, buckwheat is a "handy" crop. It can be grown on a great variety of soils and under many different conditions. If oats, barley or corn fail in some parts of the fields, try buckwheat. If you have a field that dries up late, try buckwheat. If you have a sandy corner on the farm, try buckwheat. If you have an acre that has just been cleared, try buckwheat. It is easy to grow, and will often give good returns on soil where other crops will scarcely survive. It must also not be forgotten that buckwheat will respond readily to the richer soils and to good cultivation. There are several varieties that are good, among them being Rough or Rye, Silver Hull and Tartarian.

Buckwheat will, as a rule, do well if sown any time during June. It is best to have the soil well worked in order to start the crop growing quickly. Three to four peeks per acre should be sown with the ordinary grain drill, and don't sow too deep. About one inch in heavy soil and not more than two inches in light soil is the proper depth.

The crop should be harvested when the large proportion of the seed has turned dark. It can be

cut with the binder into loose, small sheaves and stooked as other grain. In threshing, it is best to lower the concaves to prevent crushing the seeds.—F.C.N.

EXTRACTING ENERGY FROM THE ELEMENTS

The generation of electricity by means of the sun's rays, tides and the wind is quite possible mechanically. But, as such power is only available intermittently, extensive methods of storage are necessary. Again, while many storage methods are possible, unfortunately, none has so far proved economically feasible.

In the case of compressed air storage, for instance, the reservoirs necessary, whether wells in the ground or steel tanks above, would have to be of enormous size. The cost of these and the required electrical and mechanical machinery, together with the cost of energy in the numerous transformation steps necessary, would make the cost of the relatively small amount of power prohibitive.—L. G. D.

CONSERVATION OFFICIAL GETS IMPERIAL POST

Col. Charles A. Hodgetts, who recently resigned as Commissioner of the Canadian Red Cross in England, has been appointed Deputy Commissioner of Medical Services under the Imperial Ministry of National Service. Before going overseas, he was Medical Adviser of the Commission of Conservation. Of Col. Hodgetts' new appointment the Ottawa Journal Press says: "In his new capacity his rare energy and capability will be employed for the whole Empire. It is an honour to Canada that his qualifications should have resulted in this appointment."

Estimate Pulpwood Resources of Canada

Accessibility an Important Factor in Development

The following table shows the approximate amounts of certain classes of pulpwood material now standing in the several provinces of Canada. All sizes of the species named are included. It represents, to some extent, a compromise between the guesses made by various individuals or organizations in the past, and information relating to partial areas based upon investigations actually made in the field.

	Cords
New Scotia	10,000,000 (approximate)
New Brunswick	15,000,000
Quebec	300,000,000
Ontario	200,000,000
Total for Eastern Canada	550,000,000 cords.
Pacific Provinces	\$5,000,000,000 (approximate)
Prairie provinces	100,000,000 (approximate)
British Columbia	285,370,000 (with spruce, balsam and cottonwood)
Total for Western Canada	470,370,000 cords.
Total for All Canada	1,020,370,000 cords.

In considering this table certain allowances must be made in arriving at commercial possibilities. In the first place, vast amounts of material of suitable size for pulpwood are so situated as to be commercially inaccessible. In other cases, bodies of timber of limited size are so scattered as to make profitable operation impracticable. Further, balsam does not float readily for long distances, and heavy losses result from sinking where long drives are necessary.

Another factor, sometimes overlooked, is the heavy demand upon these forests for purposes other than the cutting of pulpwood. The greatest of these is for the manufacture of lumber, for which very large amounts of spruce and balsam are used annually in eastern Canada.—C.L.

GOITRE INVESTIGATION

Dr. F. J. Shepherd, late Dean of the Faculty of Medicine of McGill University, Montreal, and an authority on goitre, has just completed an investigation of the prevalence of this disease in Alberta for the Commission of Conservation. The investigation was undertaken as a result of representations made to the Commission that goitre was becoming unduly prevalent in that province.

PETS AND PIGS

Away with the pets

That provide us no fats;
Canaries and parrots,
And puppies and cats.

Keep a pig.

Every fire makes every man struggle harder for a living by compelling him to spend for his neighbour's waste.