

soil of sufficient area to raise under existing climatic and market conditions enough produce to support a family in decency. Homesteads in broken country along creek bottoms, valleys and on meadows in the mountains would be rendered more valuable if they were not laid out in quarter sections but in legal subdivisions. As it is there may be a meadow large enough for only one homestead but divided among four quarter sections. No one family can by any means homestead the whole meadow and no four families can make a living from it. If homesteads could be entered by legal subdivisions of forty acres each, they could be more fittingly adjusted to the irregular areas of arable land existing in the mountains.

Grazing should be permitted as at present on the unoccupied public land of the east slope, but should be under the supervision of the forester in general charge of the country so that steps may be taken to prevent damage to the range or to the forest by over-grazing.

The welfare of unsuspecting immigrants and the best utilization of the lands demand that no homestead entry should be granted until the area involved has been examined by the forester and pronounced fit for agriculture.

Reforestation.

There are large areas, chiefly the land described under the heading 'Denuded,' belonging both to the government and to mining companies, upon which no crop can be raised and upon which in the absence of natural reproduction it may be found advisable to institute some methods of artificial reforestation.

Unless it should develop that some mining company is willing to undertake tree-planting on a small scale this method of reforestation may be dismissed as too expensive for the area under consideration.

Lodgepole pine seed can be secured cheaply in large quantities during the logging operations in the valley. The burned slopes and gravelly benches of the denuded areas, especially the areas with the lightest ground cover, would appear to afford a seed-bed upon which broadcast sowing on the snow in the winter would be productive of good results. A portion of this land suited for reforestation belongs to the West Canada Colliery Company, the managers of which are interested in forest preservation, and it is possible that the company would be willing to co-operate with the government in the reforestation scheme.

Further Surveys.

It is widely believed that the timber on the east slope of the Rocky mountains is very important to the great plains to the east, both for its own sake and because of its influence on climatic conditions and waterflow. Yet it is not known how much timber there is, to what extent it has been destroyed by fire nor how much it affects the waterflow.

Timber and irrigation administration would be assisted by a knowledge of the quantity and location of the timber and the most feasible methods of fire protection, by a study of the interdependence of forests, precipitation and stream flow and by a study of the natural laws governing the advance, reproduction and development of the forest. Such a study could be made and all practical results secured by a small forest survey party working for a few months along the east slope northward from the international boundary.