

taining similar soil. These two are manured every other fall, before seeding, at the rate of 14 tons per acre. Thus the same soil is treated each year as pasture, fallow and fall wheat, and we can compare results.

In this table are given the total rainfall for seven months (May to December), the drainage from each, the soluble matter washed out from each, and the quantity of nitrogen, principally in the form of nitrates.

Month.	Crop or Fallow	Rainfall, ins. per acre	Drainage, ins. per acre	Solids, lbs. per acre	Nitrogen, lbs. per acre
May.....	Permanent pasture.	19.08	12.1220	1922	.6340
May	Bare fallow.	17.1600	10.376	945	
May	Fall wheat.	6.920	10.11	1534	
June.....		53.6172			
July.....		17.7061			
August	Bare fallow.	17.487	3.120	571	.588
September	Bare fallow.	41.0731	4.420	214	.174
October	Bare fallow.	41.5038	14.1160	2866	.6028
November	Bare fallow.	58.1781	19.0300	1930	2.4300
December	Fall wheat.	1.254	205		.3505
May to Dec.	Permanent pasture.	157.8533	12.1220	1922	.6340
May to Dec.	Bare fallow.	58.0380	10.376	4.0854	
May to Dec.	Fall wheat.	7.554	12.56	.5039	

The above rainfall represents a fall of 15.574 inches. The drainage from the permanent pasture was 3.4 per cent. of the total rainfall, that from the bare fallow 16.4 per cent., and from the fall wheat 2.1 per cent.

In England for ten years the rainfall amounted to an average of 31.451 inches, and the drainage to about 45 per cent. Under such conditions there is much greater loss of nitrates by drainage, since the period of nitrification is much longer and the washing continues summer and winter. From a wheat field, unmanured, the average annual loss was ten to twelve pounds; from unmanured and uncropped land as high as 41.81 pounds per annum (Lawes and Gilbert).

From a glance at our table we can draw conclusions similar to those elsewhere obtained, viz:

The loss of soluble ingredients from a bare fallow exceeds that from a field under crop.

There is loss from a wheat field after maturity.

The advantages gained by fallowing may be greatly modified by loss in drainage water.

A growing crop tends to hold the nitrogen in the soil.

The fall washings are greater than those of summer.

The following may be practiced either to clean dirty land or to rest exhausted land: In the former case, to avoid excessive loss by drainage, recourse may be had to roots *thoroughly cultivated*. To improve an exhausted land, instead of allowing the land to lie fallow a whole year, a green crop might be plowed under, thus keeping all the nourishment in the soil, increasing it by drawing on the air and sub-soil, and by decreasing the drainage. For green manuring, red clover, rye and buckwheat are specially recommended; other crops, such as rape, white mustard, scarlet clover, etc., are also used. These should be plowed under just before full blossom.

On the whole most soils will improve best under a combined treatment of green manuring and fallowing, where resort is necessary to such treatment.

A Scheme of Organization for Farmers.

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(Concluded.)

By the managing committee making arrangements for the purchasing of all the plaster, salt, commercial fertilizers, etc., required by the whole county, in the following manner: Whenever the managing committee deem it expedient to purchase plaster, salt or commercial fertilizers, the president of the managing committee should instruct the central secretary to write to the secretary of each club in the county and request him to make a report before a certain day of the quantity of plaster, salt, or commercial fertilizers required by the members of his club. On receipt of such letter the secretary of each club should immediately call a meeting of the club and ask the members what quantities they require, and at once report the quantities on a post-card to the central secretary. As soon as the reports from all the clubs have been received, and it is known what quantities are required for the county, the president of the managing

committee should instruct the central secretary to insert advertisements in the leading papers in the Dominion, asking for tenders with samples for the quantities required. He should submit such tenders and samples as he may receive to the managing committee, who should decide which to accept. The central secretary should then write to the secretary of each club, informing him of the price of the plaster, salt, or commercial fertilizers, and requesting him to collect from the members of his club the amounts which the quantities required by them come to at that price, and to deposit it in the bank to the joint credit of the president and treasurer of the managing committee. As soon as the money from all the clubs is deposited in the bank the central secretary should write to the person whose tender the managing committee have decided to accept, and request him to deliver the amount to the order of the bank in such quantities to the various railway stations in the county as may be most convenient for the different clubs.

In fruit trees and seeds the same system may be adopted, except that in these articles, of course samples could not be asked for, and all the managing committee could do would be to obtain the best tender they could, consistently with making sure of the respectability and good business standing of whoever they decided to deal with.

No doubt other means of promoting the object of the organization in the counties would be suggested as time went on.

8th. That the object of the organization should be promoted in the Dominion, by any means which the Farmers' Convention may deem expedient. The expenses of such an organization as suggested would be of two kinds—general and local. The general expenses would consist of those incurred in each county, which would be, 1st, The furnishing of the central office, which should consist of a good map of the county to enable the central secretary to point out the way to the house of any member to any one wishing to know it. A large number, say 200 or 300 glass fruit jars to hold samples of grain sent by members, each being labelled with the name and address of the owner of the sample. A large number, say 200 or 300 small wooden boxes holding about a peck each, to hold samples of corn in the ear, potatoes or other roots sent by members, each being labeled with the name and address of the owner of the sample. A number of shelves all round the room to hold the sample jars and boxes, on which shelves they should be kept arranged in proper order—that is, all of one kind together. A large common table to hold samples of manufactures, models, etc., sent by manufacturers. A large table to hold files of the principal agricultural and other papers. A large black board for the central secretary to post the prices of all kinds of grain and other produce in the principal markets, and a large blank book for the central secretary to keep a register in of articles wanted, arranged under the headings of farms, horses, cattle, sheep, pigs, hay, straw, grain, and sundries, in each case giving a description of the article wanted and the name and address of the person wanting it. A large blank book for the central secretary to keep a register in of articles for sale, arranged under the headings of farms, horses, cattle, sheep, pigs, hay, straw, grain, and sundries, in each case giving a description of the article for sale, and the name and address and the location of the house of the person having it for sale. A large blank book for the central secretary to keep a register in of farm hands and domestic servants wanting employment, in each case giving the names and addresses, qualifications and references. A large blank book for the central secretary to keep a register in of employers wanting help, in each case giving the description of help wanted and the names, addresses and location of the houses. A large blank book for the central secretary to keep a register in of the daily prices of all kinds of grain and other produce in all the principal markets. A desk and stool for the central secretary to use to write at. A stock of stationery for the central secretary to use in the correspondence of the office, and a number of chairs or benches for the general council and the managing committee to use at meetings. 2d. The rent and taxes of the central office. 3d. The salary of the central secretary. 4th. The paying for advertising in the papers when necessary to do so, and for printing membership tickets and service tickets for all the members in the county. 5th. The expenses of the president of the managing committee to and from the farmers' convention.

A subscription of 50 cents a year from each of the farmers in the county would be amply sufficient to meet these expenses in each county.

The local expenses would consist of those in each club, which would be the paying for fire and lights and what stationery and postage were necessary for the secretary to use in the correspondence for the club.

A subscription of fifty cents a year from each of the members of the club would be amply sufficient to meet the expenses in each club.

Therefore the annual membership fee should be one dollar, which each member should pay to the treasurer of his club at the commencement of the year, and for which he should receive a membership ticket as a receipt, and to show the central secretary in case of wishing to claim his assistance in any way, to which he would always be entitled on producing such ticket.

The treasurer of each club should deposit one-half of such membership fees, or 50 cents for each member in the bank nearest to the central office, to the joint credit of the president and treasurer of the managing committee, so that none of the general fund could be withdrawn from the bank except by a cheque signed by the treasurer and countersigned by the president of the managing committee. The central secretary would of course have no control of the funds, but would have to apply to the president of the managing committee for any sums required for expenses of the central office or anything else.

In order to establish the organization suggested above in any county, it would be necessary in the first place that a few of the most prominent and energetic farmers in the county should form themselves into a provisional managing committee for the county, with a president and secretary, merely to hold office until a proper managing committee could be elected, as suggested, and to let it be known by means of the local papers that the secretary of the provisional managing committee was prepared to receive and register the names and addresses of the presidents, vice-presidents, secretaries and treasurers of all clubs formed in the school sections in the county; in the second place, that a few of the most prominent and energetic farmers in each school section in the county should induce all the farmers living in the section to meet at the school-house and elect a president, vice-president, secretary and treasurer and that the secretary in each case should at once send the names and addresses of those elected, with the name of the township and the number of the school section to the secretary of the provisional managing committee, who should register in a book the names and addresses in the order received, and as soon as clubs were established in all the school sections in the county, should write all the presidents to meet wherever the provisional managing committee deemed expedient, which would end their functions, as when the presidents of the clubs met they could proceed to carry out the arrangements suggested.

Report of the Judges on Prize Farms for 1886.

(Continued from June.)

On the morning of June 24 a slow ride of 32½ miles through the "pine stub" country on the Georgian Bay & Lake Erie Division of the G.T.R., brought Woodstock, so highly favored by rich agricultural surroundings, and 22¼ miles more on the same line landed in Stratford, on our own Avon, and noted amongst other things for the home of the Canadian Shakespear of the cheese interest. Twenty-four and one-half miles on the Buffalo & Goderich branch, running through a country of much fertility and strong soils, brought Seaforth, where we were met by the junior Mr. Dickson, to be told that their farm had been withdrawn from the competition. We had just time to catch the return train to Guelph, on which for a few hours we had ample time to chew the cud of reflection, and to say angrily, mentally, that things in this world might often be managed better, which is very likely true. Like the old Roman, that evening we felt like writing we had "lost a day." The 25th was spent at Mosborough, while grateful June showers were watering the thirsty ground.

WOODLANDS.

On the 26th we drove to the "Woodlands," owned by Mr. Walter Sorby, Guelph. Only a part of the farm, to the extent of 153 acres, was entered, of which 133 acres are in Puslinch and 20 acres in Guelph townships. This farm is peculiar in its situation, sit-