Fallowing the land, the application of lime, and the growing of certain crops have been successfully practised for this purpose. One of the great benefits derived from fallowing is the separating of the particles of the stubborn soil, and setting free the fertilizing salts that have been locked up in it. These salts are then by the descending moisture, heat, and air rendered available for plant food. Deep rough fall plowing is in like manner profitable, though not to the same extent as the year's fallowing. By these means, phosphates, nitrates, &c, are prepared for the descending roots. In the Channel Island they have ploughs constructed on purpose for plowing twenty inches deep for the parsnip crop, and from the soil to that depth the growing plants take their nourishment. Subsoiling when judiciously executed, adds to this manurial supply eventually.

The application of lime is of great utility in rendering available the elements of fertility that are in the soil. By many it has been denied a place among fertilizers, but there can be no doubt of its beneficial effects as a chemical agent in most soils in freeing and dissolving the inert fertilizers, and facilitating the absorbtion by the plants.

The mode of growth of some plants is admirably designed for the development of these agricultural resources. Deep down beneath the surface soil that may have been exhausted of mineral manure such plants send down their long taproots opening up an unexausted subsoil, thereby affording access to heat and air, and bringing up the mineral manures from their compact abiding places. In this class of plants clover holds the first place. By means of its long roots it penetrates a vast mass of soil. It takes to itself the potash and the nitrates which are deep in the soil out of the reach of other plants, and when the land where it had grown is ploughed the roots are in the surface soil, enriching it with the mineral manures from beneath. Much, it is true, of those manures is removed with the crop, yet the quantity removed is quite insignificant in comparison to that which remains. So great is the improvement by a heavy clover crop, that Volcker after going deeply into the subject of mineral came to the conclusion that the very best preparation, the very best manure for wheat is a good crop of clover. He says: "Now at first sight nothing seems more contradictory than to say that you can remove a very large quantity of both mineral and organic food from the soil, and yet make it more productive as in the case of clover. Nevertheless it is a fact that the larger the amount of mineral matter you remove in a crop of clover, and the larger amount of nitrogene which is carried off in clover hay, the richer the land becomes.

Statute Labour on Our Country Roads.

This question is one claiming our serious attention. It affects the interest of all. Its importance is felt in the town as well as in the country. The merchant depends on the state of the roads no less than the farmer. Our mud roads are, in some seasons of the year, impassable. The requirements of all demand a free intercourse between farmers and merchants, but a mud blockade prevents all traffic. The producer anxiously awaits the change of weather that will enable him to carry his produce to market, and to purchase the necessaries for his family. Last winter our endurance of the evils of impassable mud roads was even worse than it generally is. Bad roads in the country have been one cause of the depression in business. The Monetary *Times* justly remarks that farmers could have got average prices for their produce if they could only have got it to market which the wet weather and the want of sleighing prevented them from doing. True the mud season passed away and the produce was finally got to market, but how much better would it be for all parties if this could have been when farmers had the most time to spare and buyers were waiting for the farm products. We have depended too much on sleighing, thinking of byegone years when sleighing was almost as certain to come as haying and harvesting. There is, however, less certainty than in former times of a good sleighing time. The forests have been cleared away, and the free action of the sun in the later months of winter soon deprives us of the snow. There were great complaints last winter in many parts of the country of the absence of sleighing, and the state of the roads was a warning to farmers to devise and carry out some means whereby they may be enabled to get to market whenever they may deem it necessary.

Statute labor is no doubt careless and inefficient; but objections to commuting it into a money payment would probably be thick enough. Could not this labor be better directed and made more efficient? And if so, might it not be greatly extended? Could not the use of farmers' teams, as well as of men, be got to haul the stone at a season of the year when there is little to do on the farm. Until all the principal roads in the country are well covered with stone, the farmer will be under a great disadvantage in not being able to get his produce to market except under favor of the capricious weather which he can in no other way control. In England many macadamized roads have been made in this way; each farmer, according to his means, being required to haul so many loads of gravel or other road-making material. Few persons, in this country, have yet ventured to dream of covering all the principal roads with stone or gravel, but it is a measure to which county councils should vigorously apply themselves.

How to Get Big Crops of Wheat.

The great object of good farming is to get good returns for the expenditure of time and money—not merely to get a heavy crop for one season but good crops continuously. This can be done for any number of years by judicious forethought and good cultivation. We will give one instance—example is better than precept. An American farmer for a number of years had his wheat crop average forty bushels to the acre. It was always of the finest quality, and over the required weight. His rotation of crops has been 1 corn, 2 barley with clover, 3 clover, and 4 wheat succeeding clover. He never missed a crop of clover, or seeding it barley; the barley, he thinks, rather helps the young clover by the slight shading, and his crops of barley are always heavy. The clover makes great growth after the barley is cut.

He plows down the rank clover for wheat, nine inches deep, he gives it one harrowing, then hauls out the manure and spreads it. He plows this down shallow, so that the fertilizer may be near the surface to nourish the roots of the wheat plant. He sows his wheat with the drill, one bushel and one-fourth to the acre. His farm is a clay loam.

He keeps a large number of sheep, and to the regular system pursued and to the keeping of sheep he attributes his success in farming, so that he is gaining every year, his land becoming more fertile and his crops more productive. He believes nothing improves a wornout farm more than pasturing sheep. They spread the manure evenly over the whole field, and there is no better fertilizer than the droppings of sheep.

The system of this farmer though eminently successful with him may by others be somewhat modified to suit their circumstances. The same rotation is not equally appliable to every locality and every variety of soil; but to all a regular system is essential to secure continuous good crops, and it is necessary that the system be such as to add to, or at least preserve the fertility of the farm, laboring not only for the present but for future years.

Top-Dressing Meadows.

There is no other part of the farm that needs more care than the meadow, and there is none so generally neglected. It is eaten so bare in the fall that the roots have no protection from the frost and many of the tender and more useful grasses are winter-killed. It is again eaten down in the spring, a still more injurious habit than the winter grassing. Not only are the plants just beginning their spring growth eaten into their very heart but the "poaching" the land is even more hurtful to the growth. With such treatment it is not at all surprising that the yield of hay is so often only one or one and a half tons to the acre. In Britain the meadows are never eaten bare in the fall, and no stock is allowed into them in the spring, and their yield of hay would surprise some of our Canadian and American farmers.

It is not enough that they be kept without being injured by close and unseasonable feeding. They need manuring as much as any crop on the farm. A continual carrying off of the product of any soil must impoverish it. A farmer needs not to be told that if he continually draws from a deposit in the bank without at all adding to it, it will in a short time be exhausted, and the same rule is applicable to the soil. Every ton of hay removed from it is a draught on its store of plant food, and if this be not by some means replaced, the deposit in the soil must be exhausted. It is necessary to restore the elements that have been taken away, and this is to be done by top-dressing.

Various kinds of manures have been applied to grass lands, and what kind produces the most profitable results has been a source of enquiry to agriculturists. An interesting experiment with various manures applied to grass was made at the Michigan State Agricultural College. The manures were applied to the plots from May 5th to 10th, and the grass produced from each application was carefully cut, saved and weighed in July and October.

Two bushels of plaster per acre gave an increase of	4153	lbs of hay
Five of wood ashes	3942	"
Twenty loads of muck	4683	"
Twenty do. and 3 bushels of salt	5318	"
Three bushels of salt	4184	"
Twenty loads of horse manure	5023	"
Twenty loads of cow manure	4874	"

This experiment was conducted with great care for two years. The soil was a light sandy loam, and it is taken for granted that it gives the approximate value of these manures as top dressing for light sandy loams. The experiment shows that two bushels of plaster are worth more than two tons of hay. This experiment is more valuable to us Canadian farmers from the fact that the manures experimented with are all easily obtained and at little expense. Experiments with commercial fertilizers would not be so generally useful. The experiment shows the value of muck to be greater than that of stable manure and its value to be much increased by the addition of salt. We used muck in large quantities for many years as a top dressing for grass lands and a fertilizer for various crops, and we never found it of as much fertilizing value as stable manure. The value of muck, however, varies very much; some of it is not worth much more than the cost of digging and hauling and some very valuable.

A compost heap formed of earth collected from ditches, headlands and other waste places with lime added and turned over once or twice is a very good top dressing, and almost the only cost is labor. The weeds about the farm may be put to a profitable use by being added to the compost heap. Salt is a very valuable ingredient in the compost heap, as without it, the decomposing weeds and sods would be a nursery for insects—the farmers most dreaded foes.