of demand and supply will hold good. Educate the girls, and the boys will soon be there. So long as girls are willing to associate with tobacco and whisky, with low aspirations and evil practices, so long the boys will gravitate to that level.

But when the girls demand fewer cigarettes and more brains, when they ask honor for honor, purity for purity, when they will have the steady nerve and strong muscle of total abstinence, the boys will soon see light in their flight and begin to climb to a higher plane. Hence for the sake of the boys as well as the girls, I plead for the higher education of the girls. Being educated they will be ready to assume responsibilities in any place. The greatest of greatness is shown in the ability to adapt one’s self to any and all conditions. Give a girl an opportunity to develop broadly the powers and possibilities that God has given her, and she will be ready to serve or be served, to lead or to be led.

I quote from another. “The woman who understands chemistry well enough to know why bread rises will be a more successful breadmaker, than if she did not; the woman who is acquainted with botany sufficiently to know the medicinal qualities of plants, will make a better nurse for it; the woman who is proficient in mathematics is more likely to keep her household expenses on the sunny side of profit and loss. She who is thoroughly versed in physiology and hygiene will make a better mother; in short, he who has an educated wife has a priceless treasure.”

Sheep.

[Hon. Wm. Miller, of Rusk.]

I commenced keeping sheep about twelve years ago. My reasons for going into the raising of sheep were: In the first place, to get fresh meat in the summer season; in the second place, to raise wool enough for our own clothing; and in the last place, to improve the fertility of the soil. Having moved onto a farm that was of excellent soil, but which had been let out on shares for a number of years and had had large crops raised on it and become exhausted through general pioneer farming, I purchased thirty-two sheep from a neighbor who had got tired of keeping sheep, for the small sum of $55.00. I had had no experience in sheep-keep-
wool and meat, I believe sheep are necessary to the general farmer in keeping up the fertility of the soil, furnishing meat for his own family and woolen clothing for our cold climate. I would say that I think sheep raising is profitable with good sheep in Wisconsin.

Renovation of Exhausted Soils.

[Hon. Chas. V. Guy, of River Falls.]

The first inquiry pertinent to this subject is, What elements of fertility have the soil lost, or what does it need? This can best be learned by knowing what crops have been raised.

As far as the purposes of this discussion are concerned, we will assume the raising of wheat, year after year, is chiefly the cause of exhaustion. For exhausted soils, barnyard manure is a specific. It contains in proper proportions nearly all the elements of fertility required. Where manure is available the problem is very simple. Spread the manure on the field, cover it up, leaving it as near the surface as the nature of the manure will admit. If it is well rotted the harrow will cover it deep enough; if green and strawy, plow it under. In heavy soils it acts in two ways beneficially. First, mechanically, by making the soil porous, giving freer aeration to light, air, water, etc., thus preventing what is known as baking in dry weather. Second, chemically, by supplying in proper proportion the elements which enter into the grossest grains.

There are very few farmers who do not haul all the manure made in the yards and around the barn and spread it where it will do the most good. Whether manure hauled in winter should be spread on the snow and ice above the frozen ground is still a question. In practice each farmer can judge for himself. I prefer, when I haul from town, to pile it up, leaving it hollowing on top to hold the water, throw a little earth on it to absorb the escaping ammonia, and leaving it to ferment till the foul seeds have lost their vitality, and then spread it where wanted when convenient. But the difficulty is, the supply is short when the manure is gone, but a small part of land needing it has received it. This brings up the question of burning straw and the debris of the fields and garden.

If a farmer, who has not tried it, should make a compost heap of all decaying vegetable matter, with the chips and leaves raked up about the buildings and roadside, and to this add all soapy water from the sink and washroom, or other house slops, the size and value of the pile would surprise him, unless he had attained that state of doubtful certainty where nothing surprises.

The practice of burning straw, as well as burning the prairies, is nearly done away with. Still, if one has no stock to work it up, it is better to spread it as thin as may be over the field at time of threshing, and burn immediately. A piece of, say four acres, on which the straw grown on forty acres has been evenly spread and burned, will show a marked increase in crops for several years. While one can scarcely expect to make manure enough from a given field to furnish a coating every year, or even every third year, yet keeping stock, saving and hauling the entire product of the farm, except the pastures, using it as an absorbent for the stables and barnyard when wet, spreading so as to absorb the liquid elements in the yard, a much larger amount can be made than usually is made. Every acre of small grain or hay should produce at least a cord of manure when as well rotted as barnyard manure usually is when hauled out; every acre of corn, if a paying crop, will produce twice as much. In case of a deficiency from the compact heap and barnyard, and none to be obtained within a reasonable distance by hauling, then green crops must be depended on for a supply.

Summer following, necessitates the loss of one season’s rental for the land, and requires nearly as much labor, except harvesting, as is required to raise a paying crop. The rest the land gets repays in part for this loss. Our lands when first broken up contained an abundance of plant food, the accumulation of ages of vegetable products. Made still richer by alkaline salts, the result of many burnings of prairie and forests. This supply is very far from being exhausted, even in lands longest under cultivation.

By a judicious system of rotation, with the aid of a dressing of such manure as the barnyard affords, once in each rotation of four or five years, with an added coat of land plaster of from