the price of good wool is not only cheating himself in the long run, but makes a reputation in no small degree for his more honest neighbor, the poor article lowering the price of all coming from a given locality.

Selling Mutton.—Mutton, the other salable product of every sheep farm, should be sold at the time when it brings the highest price, provided there is no extra cost of production to offset this extra price. Winter or spring mutton costs more than fall or summer mutton, but in the spring we have the fleece to offset this and in summer the cheapness of feed, and favorable weather for growth. As a rule, no sheep that have not been grain fed should be sold, whatever the time of the year, for no matter how round and plump they may look, a small ration of grain will add much to the weight and quality even on full grass feed.

Time to Sell.—The poorest time to sell is in the fall, when every shiftless farmer is thinning out his flock to make amends for a poor hay and grain crop. Better hold and feed well for a month or two later, get some good manure, fatter sheep, and better prices. Of course winter lambs must be sold in the spring, usually about June 1st, and in my opinion their mother should soon follow, for the high feed which is necessary to get the best results in lambs, has a bad effect on the ewes if allowed to run down again, many of them refusing to raise lambs the next year, and others being so spoiled by their high living that they are like the pampered and high fed belles of the city, worthless for vitality or mother functions.

The shepherd who understands his business, will as a rule make the wool and lambs pay, or more than pay, all expenses and have the mutton sold as clear profit.

Conclusion.—In conclusion I will say, let the farmer breed intelligently, feed intelligently, and handle his flock intelligently, and he is sure of good pay, quick returns, increased fertility of his acres and an ample inheritance for his children.

SHEEP IN WISCONSIN AGRICULTURE.

By GEO. MCKERROW, Waukesha County, Wis.

Fourth Paper.

An Age of Progress.—Agriculture is acknowledged by all civilized nations to be their life current. Impoverish this life blood and you impoverish the nation; enrich the current and you enrich the masses. Therefore, we are met here to discuss the different elements of Wisconsin agriculture, and how to improve upon prevailing methods and customs. This is an age of progress, and the farmer, who is the corner stone, the foundation rock, of our country’s progress, is fast learning that unless he be stirs himself in his line, he will soon be pushed to the wall by the strong competition of the times.
Have a Specialty.—Diversified farming is a necessity, yet every farmer should have his specialty. Let the man who likes dairying best adopt that. The lover of horseflesh will succeed as a horse-breeder; the man who admires the hog, and thinks him the cleanest of the domestic animals, will succeed in swine-breeding; But of our live stock, none is a more important factor in a complete and successful system of farming than the sheep.

Sheep on High-Priced Land.—We often hear the remark that our lands of Southern and Central Wisconsin are too valuable for wool production. This may be true if you confine sheep-husbandry to wool-production alone. You might as well raise wheat for the straw as to raise sheep for their wool alone on our high-priced lands, with the wool markets of the world in their present condition. The English farmers, who lead the world as successful agriculturists, raise sheep profitably on lands worth from $300 to $500 per acre. You may ask: Why do they do this, and how do they do it? In answer to the first question, I will say that they have found the sheep to be the best of fertilizing agents, a manufacturer that they can not dispense with. He returns 95 per cent. of the fertilizing matter of all the foods that he consumes to the soil. Prof. Stewart, in his "Feeding Animals," tells us that wheat bran is worth $18 per ton as a fertilizer, oil meal $30.48, and clover hay $11.45 per ton. Most of our other feeders are worth as much for fertilizers as it costs to produce them. So you can easily see that the English farmer needs the sheep to assist him in keeping up the value of his high-priced land, and, my friend, we need him. John Johnston, of Geneva, N. Y., changed a poor worn-out farm to one of the best in the country by a system of underdraining and sheep-feeding. Many of us know of worn-out grain farms that have been brought back to a high state of fertility by grass and sheep.

Economical Meat.—Another reason why the English farmer holds to the sheep is because he has found him to be the most economical producer of the best of meat. The eminent experimenter, Sir J. B. Lawes, tells us that the sheep stores up 12 per cent. of the dry food consumed, while cattle store up 8 per cent., or 8½ lbs. of dry food increases the live weight of the sheep as much as 12½ lbs. of the same food will increase the weight of the bullock. Adding to this the fact that good lamb and mutton are on the average as high or higher in price than veal and beef, and are classed as high in nutritive value as a food, gives us a good reason why John Bull holds to his mutton chop and why the Yankee should reach out for his share.

Breeding and Feeding for Profit.—How do they make sheep husbandry profitable on their high-priced lands? They do it by adopting a means to an end. They breed for it and they feed for it. As civilized nations have advanced in the processes of agriculture, mutton has become the primary consideration of this business and wool only secondary. France improved the mutton qualities of the Merino, and our Merino breeders are now agitating in the same direction. Germany for years has been calling on England for mutton rams to cross on her Merino flocks, and they tell us that the Down Merino cross is a success.

England, the acknowledged leader in the line of mutton sheep, first improved her Leicesters, Cotswold and Southdowns, but more recently her breeders have developed and brought to the front the Lincoln, Romney Marsh, Dorset
Shropshire, Hampshire and Oxfordshire Downs.

The Leading Mutton Sheep.—Judging from prizes won at fairs and fat stock shows, prices made at sales and lettings, and prices brought in the mutton markets, in connection with statements from agricultural journals, we believe that we are justified in stating that the Downs are the leading mutton sheep of the world to-day. We have tried several of these English breeds and their grades, both as breeders and feeders, and have found the Downs in general to be good prolific breeders of strong, healthy, fast growing lambs, and very quick feeders and, above all, the best of sellers. For these reasons, we advocate as a general-purpose sheep the Downs breed in general and the Oxford-downs in particular. The condition under which the Oxford were developed, and the purposes for which they were specially bred, fit them to take a very important place in our advancing system of sheep husbandry.

Origin of the Oxford-downs.—In a low, moist, and rich district at the foot of the Cotswold hills the older breeds, such as the Cotswold and Southdown, had been used, but they apparently did not have the constitutional vigor necessary to thrive continuously on the rank, rich herbage of this district. In 1828 a Mr. Hitchman made a cross between the Hampshires and Cotswolds, and in 1833 the Messrs. Druce, father and son, made a Southdown and Cotswold cross. Many others followed suit, and in a few years these cross-bred sheep almost drove the older breeds from this district. By careful selection and breeding, they were soon brought to public notice as a valuable accession to the improved breeds, and possessing a vigorous constitution, prolific tendencies, quick growth, valuable fleeces, and large choice mutton forms, their friends and breeders in 1857 adopted the name, Oxford-down, and soon after they were admitted to the English show rings as a distinct breed. From these rings they annually go loaded with honors.

What Breeders Think of Them.—Richard S. Fay, of Lynn, Mass., and Wm. C. Rives, of Virginia, were the first of our countrymen to introduce these sheep to our shores, bringing over the first lot about 1860. Mr. Fay says of them in 1863:

"I have had no trouble in raising all their lambs, 160 per cent. in 1862 and 175 per cent. in 1863. They thrive well on my rocky pastures, yielding 8 and 8½ pounds of wool per head on the average, in 1862-3 the shorn ewes averaging 135 pounds, and the rams 220 pounds."

T. S. Cooper says of these sheep: "After trying other Downs, I have chosen the Oxford as the best."

Prof. Brown, of the Ontario Agricultural College, who is experimenting with all breeds, says: "The Oxford has unquestionably stood the over all comparison the best."

Geo. W. Franklin, an Iowa sheep breeder and feeder, in an article in a late issue of the Breeder's Gazette: "Though a breeder of Cotswolds, I admit the black-faced muttons bring the best prices, and I think the Oxford-down the best of these dark-faced breeds."

Mr. Hill, of Sheboygan County, in this State writes me that the Oxford have given him very good satisfaction. His flock has averaged over 12 pounds of wool per head for the past two seasons, and in 1887 his twenty ewes raised him thirty-one lambs, or 155 per cent.

Our experience with the Oxford and its grades for the past nine years has been very satisfactory. They have flocked well; in a lot ranging from 125 to 200 head, have produced from 110 to 135
per cent. of lambs. We have shown them at leading Wisconsin fairs, and have won a large share of prizes, often coming in competition with other breeds. Our grade Oxfords have never been beaten where shown and coming in competition with grades of all kinds. This is pretty good proof that they are a valuable breed to grade up the common sheep of the country.

John Rutherford, of Canada, the largest exhibitor and prize winner of sheep at the last fat stock show held in Chicago, said to me on November 19:

"I know but little of these Oxfords, but the finest lot of mutton lambs I know of in Canada this season are a lot sired by an Oxford ram from Leicester dams. They were April lambs, and I offered $5 per head for the lot in August but could not get them. I bought one for a show lamb that weighs 154 pounds and never had grain or extra feed until I bought him."

Matthew Howitt, of Muckwona, raised a lot of grade Oxford lambs last season which were dropped in April and sold the 8th of November at $4.51 per head. They were raised on very short pasture without grain. The dams of these lambs sold at auction, March 20, at $8 per head. I could give many more instances of the value of the improved mutton breeds, both in their purity and as factors in grading up common stock.

Heavy Weights.—The English have not only bred well but they have fed well, producing Lincolns and Oxfords that have weighed over 400 pounds at maturity. The younger Druce says our Oxfords weigh, on an average, 140 pounds at 12 to 14 months of age.

A pen of Oxfords weighed, at the Smithfield show in 1873, an average of 298 pounds at 22 months old.

Hampshire-down lambs at a year old with fair feed are said to weigh 130 to 140 pounds.

Lincolns under good feeding will dress, at two years old, 120 to 160 pounds, and exceptional ones have dressed as high as 360 pounds.

Early Maturity.—Cotswolds and Leicesters have also been fed up to weights nearly as good at the same ages, showing us plainly that the English do not depend on a straw pile to develop their muttons as too many of us do. They have learned that the great secret of success is early maturity; that if a ewe is poorly fed so that her lamb will only gain 1¼ to 2 pounds per week, while another is well fed and her lamb gains 2½ to 3 pounds per week, the lamb of the latter is double the weight of the former at the end of three or four months. It is not only worth twice as much on account of its weight, but its quality makes it three or four times as valuable.

We all know that the yearling that weighs 120 to 130 pounds is worth double the one that weighs only 80 or 90 pounds. We are told by all experimenters that meat can be grown on young animals at ¼ to ½ the cost that it can be produced on older ones, and in the case of the sheep it sells on the lamb for from 50 to 200 per cent. more than on the old sheep, a 60 pound lamb often selling for $5, while a 60 pound sheep in the same market will only bring $2.

Lessons.—These facts should teach us a few lessons:

1. That our lands are neither too good in quality nor too high in price to admit of successful sheep husbandry.

2. That we must protect this industry by good breeding and feeding, which will produce gilt edged lambs and muttons and choice fleeces of good wool.

3. That we must choose sheep of good vigorous constitutions, able to stand high feed and our extremes of a Wisconsin climate.
With these lessons well learned, and our flocks culled of the trash found in many of them, the dawn of a new era in Wisconsin sheep-breeding and wool-growing is at hand—yes, it is actually here. I have met numbers of sheep-breeders during the past season who say their flocks are paying them as well as any stock they handle, with less capital and labor invested. But I find from their conversation that they are all men who appreciate the fact that something of value can not be produced from nothing. They are all working for a purpose; therefore their success.

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STATUS OF SHEEP-RAISING TO-DAY.

By A. H. CRAIG, Waukesha County, Wis.

Fifty Paper.

Depression of the Industry.—At the present time great interest is felt for the prosperity of the American sheep. It is not the interest which would boom to an excitement, but rather an anxiety, a brooding fear, an anticipated calamity. Nowhere in this broad land of ours do we find one encouraging voice to proclaim cheerfulness and enthusiasm. It seems as though there had been a concerted movement for all to unite and crush out the life and energy which has heretofore been invested in this great enterprise of our people. Not only do we, who breed the American Merino, shake our heads in a pathetic, solemn manner, but we openly discuss the question of a failure, thereby placing a barrier against any possible extension of this business. That man is considered a fool, who will engage in a business where all complain of no profit and no prospect of their being one.

This is the condition of the Merino of to-day. Our farmer boasts that the fine wool sheep, which was his great bank account, has been lost in the darkness which we have been picturing to our imagination. We have forgotten the songs of praise we used to sing when we declared that the sheep never died in debt, that the lamb, the wool, the pelt, always stood as an offering of a well spent life. We have forgotten the strong claims we always advanced, that with sheep the soil became more fertile, our crops more profitable and the advancement to a higher state of cultivation. All these things time and again have we declared as a direct result of the husbandry of sheep. If they were true, then why now turn your backs against these creatures, belie their goodness and abuse their race?

Who is to Blame?—Who is to blame for this want of confidence, this lack of enthusiasm? Is it the man who would engage in its occupation? No. It is you who breed the sheep who must bear the burden of your own folly. You are the ones who have cried against it and brought yourselves down to a disregard of your own convictions. Then what can you expect of the sentiments