It would take at present prices for corn, about 55 cents per day to give the same results that one acre of fall oats, with the weeds and grass on it, is furnishing our pigs; at this rate for forty days it would amount to \$22 per acre. Now let us see how much it costs: 11/2 bushels seed oats at 50 cents per bushel, 75 cents plowing and sowing \$1; total, \$1.75.

Can you cultivate an acre in corn for less than \$7.50, including all the work from the first furrow to husking or shucking the corn? Here are two items that we should take into consideration: the improvement in the land and the work of feeding out this corn. It is true that it takes but a few minutes each day, but they will count. Ten minutes a day will count one hour a week, and in six weeks there is a full half day gone.

Do you see the point? The hogs will scatter the manure over the land better than we can. That same place will make us another crop of hog feed and at the same time greatly improve. But we must spend some more work and seed on it. About the first or middle of July we will plant it to cow peas, and, about 20 days from planting, let the pigs go back to keep the grass down so that the work of cultivating will not cost us over 40 cents per acre.

You want to know what we are going to do with the pigs during those three weeks? Well, we have a pea patch ready for them, (just as advised in a former article in The Progressive Farmer.) Though the peas are a little late, yet they will be ready for us when wanted, and what the peas lack the grass will supply. So you can readily see the great saving of time and labor of this system. If it were adopted by all the farmers in Eastern Carolina, they would have a plenty of meat to sell. While the price is high, instead of a frown upon their faces when the price was named, they would have a broad smile. Every farmer knows who has tried it that hogs kept in a pasture are almost free from cholera.

Another lesson we have learned from the rains is the importance of tile or under ground drainage. We made a box and put it in a ditch that we wanted so fill up, and it proved a perfect success. The day after a soaking rain the land over this drain was dry so that it could be worked.

HARRY FARMER. Columbus Co., N. C.

able to be applied to farming, espesome discontent will all existing turned to the soil. methods is pervading the West, culture as has never been witnessed each farmer growing enough sugar a head?' every grade, and will compel the once this combination is brought give up the semi-barbarous methods by pressing the water out of the Alabama and Mississippi will become to the factory. the great and intelligent center .-Mdward Atkinson.

Raleigh, N. C., July 2, 1901.

NEWS OF THE FARMING WORLD.

Our Washington Correspondent Tells What Progress is Being Made in the Various Sections of the Country. Correspondence of The Progressive Farmer.

The Department of Agriculture is contemplating a good deal of work during the coming fiscal year which will result in

THE ESTABLISHMENT OF NEW INDUS-TRIES

begun. These will include the pro- clover, cowpeas, or vetches should induction of cereals from which maca. tervene, to store the soil with nitroroni can be made, and encouraging gen. The tops of the beets should which this product will be produced; under, as they contain a large perfostering the date palm, and the pro- arid States have the richest beets beduction of tea. Practical tests of cause of the richness of the soil, the great benefit to the cotton industry plant food not having been leached will be made, as well as to induce the out of it by rainfall." be sought after.

liever in the future production in allotment of seeds, the United States of practically EACH CONGRESSWAN WILL HAVE FIFTY everything that we need. Especially is he interested in

THE EXTENSION OF SUGAR CILTIVA

"Within ten years," he says, "the United States will produce all of its own sugar. I may be oversanguine, but I believe my judgment is correct. Any one of the States of Illinois, Indiana, Iowa, or Nebraska, could produce from beets all the sugar needed in the United States. Over forty factories will be at work this fall, many with increased capacity. The principles now applied to this industry have heretofore been used in the production of oil. The juice is gotten out of the beets by diffusion, and run in pipes to the central factory. There is activity in the sugar industry from New York to California. There has been a steady growth in those sections during the last four years. But there has been a pause since the discussion of the Porto Rican question began. When that discussion began capital hesitated to advance money to be invested in the sugar beet industry in this country. There is no doubt about the ability of our people to make sugar in competition with any other sugar makers in the world, that is, as on as we have had time to apply American ingenuity in the field and factory and to utilize the by-products."

According to the Secretary, most farmers are

NEGLECTING THE WEALTH THAT LIES IN THESE BY-PRODUCTS.

The compressed pulp of the sugar beet, he says, is valuable to the dairy cow as the entire beet, because the extraction of the sugar leaves everything required by the cow, as it gets the necessary sugar from fodders. "I expect," he continues, "to see a combination of sugar and butter raising become common on the farms in the sugar belt. The by-products The only axiom or proverb suit will pay all the expense of raising the crop. These crops easily avercially in the South, may be a very age twelve tons to the acre in many old proverb slightly changed. "Every | States, making sugar beets worth farmer should learn that wherever about \$50 an acre. Sugar and buthis lot may be cast to learn there- | ter are composed of carbonaceous with to be discontinued." I do not | matter, which comes from the atmomean to become a grumbler, because sphere and does not deplete the soil every one knows that no further of its plant food, providing the lesson is needed on that line. Whole- refuse from the cow stables is re-

"A tremendous impetus would be before. When wholesome discontent beets to give him pulp enough to pervades the great body of persons feed his dairy cows. He would then occupied in agriculture in the South | not be put to the expense of buying sheep-growing will not be stopped mill feed, oil cake, bran, glucose faceither by the cur dog or by inertia | tory meal, and would thus make the Within another generation this neighborhood independent of mills country will export fine wools of located long distances away. When of the pampas of the Argentine, of pulp, would be able to pile it up in a the stations of Australia and or our crib as he does oil cake, to be fed to ranches in the Western Territories, the dairy cows in the winter as reand to adopt intelligent and intensive quired. The by-products should bemethods, of which the Piedmont long to the farmer who grows the plateau and the uplands of Georgia, beets. He should sell only the sugar

> "Our people will learn," concluded Secretary Wilson, "when they en- farm. This is only a single instance. tooth with big pronged roots.

gage in this work more extensively than they have already done that A COMPLETE SYSTEM OF ROTATION OF

will be wise. The extensive culture necessary to beet growing will thoroughly clean lands of weeds of every kind. The farmers will learn that beets should not be grown on the same field oftener than once in four years. Between the growing of the and the extension of those now just two crops of beets such crops as the establishment of factories at be left on the ground and plowed expanding the rice industry, and centage of mineral plant food. The

production of bulbs such as hyacinths | Congressmen who have experienced and tulips, most of which are now great difficulty on account of the imported. The encouragement of small number of seeds allotted to tree planting of all varieties, includ- them will probably be glad to know ing those which produce nuts, will their allowance this year will be practically double that received pre-Secretary Wilson is an ardent be- viously. In addition to doubling the

at his disposal. They will be of different varieties, selected particularly with a view to suiting the climate in which they will be grown. Many of these will be nut trees, such as pecans and other varieties which will grow in this country. Secretary Wilson determined to distribute trees with a hope of implanting a love of trees in the breasts of the people and inciting them to follow the example set by the Department as well as to have a permanent showing for the money expended. In addition to the trees distributed, 38, 300,384 packets of seeds will be distributed. Each Congressman will have at his disposal 14,000 packages of vegetable seeds, 400 of flowers, 110 of tobacco, 40 of cotton, 30 of lawn grass, 25 of sugar beets, 50 of forage crops, 220 bulbs, 150 strawberries, and 40 of grapes. The strawberries will be of new and rare varieties and the grapes are yet to be selected. A. B. MARRIOTT.

Washington, D. C.

WAS IT FORTY CENTS LOSS OR FORTY DOLLARS GAIN ?

There are two lessons to be learned from the following interesting anecdote: One teaches the value of rape the other teaches the importance of properly applying what is learned from experience. We quote from Wallace's Farmer:

A farmer who bought forty pounds of rape seed for forty cents last year dropped into Livingston's seed store the other day, and on being asked how his rape seed did, replied in somewhat emphatic language, "No more of your rape for me. I bought five pounds of it last year and the pesky chickens ate every bit of it

"How many chickens did you

"Oh, four or five hundred."

"And they lived on the rape al

summer?" "Did they do well?"

"Splendidly."

"So then you got first-class sum mer feed for four or five hundred chickens for forty cents. Do you think you lost the forty cents? Is it not quite probable that you have gained forty dollars and got firstclass feed for your chickens all sumleading to such a revolution in agri- given to a dairy neighborhood by mer long for about eight or ten cents

We some times hear experiment station professors dispute about the proper interpretation to put upon experiments. Prof. Shaw said the other day that it was no difficult matter to conduct an experiment but that it took a wise man to interpret it correctly. This farmer, without wool-growers of other sections to about it will continue. The farmer, intending it, had been making an experiment, and he evidently was mistaken as to the interpretation. The gain may not have been forty dollars, but say it was four, and that he furnished all his chickens with deep soil. The Ohio Station in a reflist class feed all summer at one cent a head. Was the experiment a "soil photographs" che advantage of success or a failure? It does in fact require a good deal of good sense to properly interpret the facts on the

SUGAR BRETS IN NORTH CAROLINA

Correspondence of The Progressive Farmer. Experiments performed by the writer covering a period of two years, show that certain localities in the mountainous section of our State can produce a sugar beet in every way suitable for commercial purposes. Such localities exist in Ashe, Watauga, Caldwell, Mitchell, Madison, Haywood, Buncombe, Henderson, Transylvania, Jackson, Macon, Graham and Swain counties, and it is possible that these areas may extend into Alleghany, Wilkes, Yancey, Clay and Cherokee counties.

During the coming year we hope to locate more more definitely the suitable areas, and for that purpose we desire the co-operation of all persons who are interested. It is our purpose to distribute sugar beet seed next spring to all who apply for them, and to analyze samples of the beets sent us. The only expense to the farmer will be for fertilizers and cultivation, but the beets grown will amply repay this.

A sugar beet factory is a necessary adjunct to the field. Such a factory can be successfully maintained in any good beet-producing section of sufficient area, if there be an abundance of water, limestone and coal In the probable sugar beet section the water supply is abundant, deposits of limestone are known, and the Tennessee coal formations are not very far distant. In addition to the sugar which is produced, the molasses formed as a by-product may be utilized for the manufacture of alcohol or vinegar and the pulp of the beet remaining after the extraction of the sugar is very excellent for stock feeding or for fertilizing

Good beets delivered at the factory sell for from four to four dollars and a half per ton, and the product of one acre is worth from sixty to seventy dollars. About one-half of this is sufficient to cover the cost of production, including the rental value of land. The profits to the factory are about three dollars for each ton of beets purchased and utilized for sugar making.

In New York State sugar is made from the beet and in Louisiana from cane, but it is not manufactured at any points between these two States.

A bulletin is in course of preparation and will be issued from the press in July, giving in detail the results of the work. A copy will be sent to the address of each party on our mailing list who resides in the section named, and to such others as may

The prospect for the introduction of this industry into the State is promising and the matter is well worth the attention of our people in the western mountain counties.

W. A. WITHERS, Chemist N. C. Agricultural Experiment Station.

THE TAN BARK INDUSTRY.

It is wonderful to see the amount of tan bark that is coming into town every day and shipped away. This business is not confined to Madison, but is going on all over Western North Carolina. It is strange, yes, passing strange, that the people will destroy their timber in such way. There is little or no profit in it for the farmers. The expense of peeling and delivering to the railroad is about as much as it realizes in the sale. On the mountain sides and in the coves one sees hundreds of pealed trees left to ruin and rot, just for the sake of a little bark. Your big oaks will be worth something to you some day; but more than all, you deprive your children and grand-children of necessary wood and timber by your own abuse. If this wholesale destruction of the forests is to continue the health of the country will be appalling.

Farmers, think of what you are doing -J., in Madison Enterprise.

Sugar beets, as is well known, like cent bulletin shows by a couple of sub-soiling for this crop. In the land sub-soiled, it looks like a huge molar

Live Stock and Dairy

SHEEP IN THE SOUTH.

The South Adapted to Sheep Business-In it the Planters Might Grow the Most Valuable Wool and Best of Mutton-Special Varied Fitness of North Carolina-Bluegrass; Bermuda Grass-The Armour Meat Packing Business Could Get a Hustling Rival in the

Correspondence of The Progressive Farmer.

The main purpose of the writer is to aid in awakening an interest in sheep husbandry in the South, both for wool and mutton. Her boundaries extend over ten degrees of latitude and over twenty degrees of longitude; hence her diversity of temperature is considerable. But her climatic adaptability to the sheep industry is not determined more by her extent of latitude than by the variety of altitude of her surface. Chains of mountains rising four and even to seven thousand feet above sea level, traverse the greater part of her domain. These with their high foothills, plateaus, ranges of hills and elevated planes, constitute a variety of soil with a varied climatic condition that is but easily found or equaled in any part of the world. The vegetation of her different soils may not be excelled for sheep husbandry anywhere.

It is true that the nomadic flocks of Spain and of the mountainous and plane regions of North America, habitually traverse extensive ranges from which to glean their daily food. But the history of successful sheep husbandry for more than the last hundred years abundantly proves that sheep do not need to travel over twenty, ten nor five miles daily, from which to gather a living. It proves that sheep with reasonable outdoor exercise and pure water to drink, will be quite healthy while taking their food from few acres, or that with either green or dry food from the racks and troughs, they will develop size of bone, with quan tity and quality of muscle, and fat when necessary, to a far greater extent than when kept in the nomadic

This success is not only true of the carcass of the animal, but also of its fleece. To manufacture the best quality of all kinds of woolen cloth, it is essential that the wool's highest lustre, with its soundness and evenness, or strength of fibre throughout its length be secured. Its beautiful should be carefully fostered and preunder an open shed from beating with farming and not by politicians, storms and bleaching rains. This, too, is a requisite where small flocks are kept mainly for the production of the best quality of mutton successfully.

Atlantic Coast range.

grass, upon which some of the best by explicit understanding. specimens of long-wooled mutton | The General Government has adesheep in America have been bred. quately provided for the experiment It has long been the writer's opinion station. The college has been brought that Bermuda grass could be made up to a high state of efficiency. The to rival bluegrass in its usefulness practical benefits of both the college to sheep and wool growing. More and the experiment station are apabout grasses in future.

States could excel the upland sec- point has been reached when the tions of South Carolina, Florida, broad views of statesmanship should Georgia, Alabama and Mississippi control, instead of the narrow, selfor the production of well-grown fat fish views of mere politicians. The "springlambs" for the Northern city interest is too important to be made markets. If the business was handled subservient to individual interests or properly with economy and energy, the fluctuating necessities of partiby the farmers of these States, they san politics.-Baltimore Sun.

would be able to supply and control that extensive and growing market, defying competition from the North. ern, long-winter States. They would thus soon be in position to bring back to the South the money she now spends for Northwestern salt meat and roller mill flour.

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If ten men in each of the above States would embark in the sheep business and follow it up with the intelligence, skill and energy that the Armours of Chicago and Kansas City have displayed in the meat industry in the last thirty years, they would surely develop a "spring lamb" and mutton demand market in the Northern cities and in Europe that would yield a more handsome profit than that now derived from the production of pork or beef in the Northwestern States, according to its extent, not waiting to write of the Southern market, which would grow enormously.

I have reference not only to the cheap production of meat, but also to a well organized system of slaughter and refrigerator shipment. Tens of thousands of people who are abundantly able to pay for the very best of meat, use salt-cured meat only because they cannot get fresh meats at a reasonable price. We must keep in mind that the sheep's wool pays for their good keeping annually. This is an advantage that sheep husbandry holds over all other stock in the profitable production of meat food. Herein is the main secret of the great development of the mutton breeds in Great Britain.

There is only one thing that tickles the palates of Scotchmen more than a well-baked saddle of mutton three inches thick, and that is one four inches thick. They will pay a dollar more for the latter than the former.

This subject will likely come up for more extended review further along as the writer continues these

SAMUEL ARCHER. Marion, McDowell Co., N. C.

Miscellany. Farm

MARYLAND FARMERS' DEMANDS.

The movement started by the farmers of the State to promote agricultural interests in Maryland is a step which should command attention. The movement contemplates the establishment of a State board of agriculture which will take hold of the question of immigration and crimp and corrugative properties bring in desirable settlers; the increase of the annual appropriation served. All this can be accomplished to the Maryland Agricultural Colwith small flocks in the hands of lege so as to enlarge the field of usefarmers, rather than in large herds | fulness of that institution, as well as roaming over extensive ranges. to promote the general interests of Sheep are more readily taught than agriculturists on a practical basis, any other animals to seek shelter | through the agency of men identified

Not in many years has a more intelligent or representative body of agriculturists assembled than that which met last week at the Agricultural College and formulated their So far as these foregoing advan- plans. They explicitly announced tages are concerned, our own State | that they wanted \$60,000 to enlarge of North Carolina possesses them to buildings, and declared that a State an eminent degree. Within her board of agriculture should be borders is the highest mountain created, to be composed of trustees range of the South with an abund- of the college, who are conversant ance of lower hills and rolling lands, with the needs of farmers. It was including the famous "Piedmont re- stated that there are a hundred or gion," the slate stone hills, planes more student applicants who are deand vaileys, that embrace a natural nied the advantages of the college home for sheep as well as the rolling | for lack of proper accommodation in pine lands that might be called the the buildings as they exist. Committees were appointed to urge these Kentucky, Tennessee and Virginias matters upon the Legislature to be need but to be mentioned, especially elected this fall. But in advance of the first, which has been famous for the election it is the avowed purits sheep walks, carpeted with blue- pose to have their demands conceded

preciated by the agricultural com-Of course no region of the United | munity. But it is considered that a