THE PROGRESSIVE FARMER

THE INDUSTRIAL AND EDUCATIONAL INTERESTS OF OUR PEOPLE PARAMOUNT TO ALL OTHER CONSIDERATIONS OF STATE POLICY.

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Agriculture.

THE COTTON CROP.

How a Washington Man Who Has Examined Reports From Many Sections Regards the Outlook.

Correspondence of The Progressive Farmer.

All reports go to show that the coming crop of cotton will be very large, even larger than the quite large crop of last year. The sales of fertilizers and farming machinery and implements are unprecedented, these being signs that cannot be mistaken. At the same time there are drawbacks. The spring is late and cold. Bad weather has retarded planting in the northern sections of the cotton belt to such an extent that the crop will be exposed to damage by frost at the other end of the season. Much of the early planted cotton has had to be replanted, which will add to the expense of the crop. Labor was never so scarce and wages were never so high, this meaning additional expense for planting and picking. Meanwhile other countries are trying to raise cotton and emancipate themselves from dependence on this country. Russia, for instance, has recently planted a large portion of her wheat fields in cotton and hopes soon to be able to supply her own needs. In 1899, the last year for which reports are available, her production increased nearly one-third.

An enterprising Liverpool firm of shipowners is arranging to send six American cotton-growing experts to the west coast of Africa to institute experiments in the growing of cotton in that region. In the early '60s cotton growing was started on the west coast of Africa, the incentive being the opportunity afforded by the disorganization of the cotton trade consequent on the Civil War, but did not succeed commercially, the largest number of bales exported being in 1869, when 19,300 bales went to Liverpool. Since that date the figures have fluctuated, showing a tendency, however, to a steady decrease. The west African cotton has been of the short staple variety, and not of a good color. It is, however, better than the East Indian. The Germans and French are also trying to establish cotton-growing in their west coast colonies. E. G. S.

SOME DANGERS IN FEEDING RAPE.

The practice of growing rape is an importation from Canada, largely introduced through Professor Shaw, formerly connected with the Ontario Station, and, therefore, it is well in securing the "know-how" to get as much of the "know-how" of the Canadians as possible. The Ontario Station has recently issued a bulletin on the subject, which comes handy to our readers just now. It says:

"Pasturing rape has its dangers. Some times scouring is induced, more especially when lambs are first put upon it. Access to salt at all times and to an adjacent pasture have been found helpful as preventives. Tagging should receive attention before the sheep or lambs are put upon rape. When first turned in upon a rape field sheep and cattle will too freely partake of it, unless the appetite has previously been well satisfied with other food. Bloating may in some instances be induced, which, if not relieved, will soon cause death. When sheep are turned in upon it, therefore, they should be allowed continual access to it unless in time of cold storms, and when removed in no instance should they be put back upon it when hungry. On a frosty morning, when sheep eat freely of rape, especially of the leaves of plants that are immature, there is some danger that bowel disorders will be induced which may cause death. When the sheep have been removed the previous evening and get a moderate feed of oats in the morning before they return the danger is to some extent lessened. It is at least questionable if there is any profit in pasturing rape after the stalks have been made brittle with hard frost. When the sheep or lambs have been on rape for some time they become fat, and in consequence are, proportionately less active. They some times get on their backs in depressed places and are unable to rise, in which condition they will not live many hours. This is the case more especially where rape has been grown in ridged drills. It is a wise precaution, therefore, to visit the flocks at least twice a day, and in doing so the services of a saddle horse will be found very useful where the flock is large. It may be well to allow the animals to remain on rape but a short time at first. The length of this period may be so increased from day to day that soon they remain upon it all day Caution should be exercised as to putting them upon the rape when it is frozen, and they should never be put upon it when hungry. It may not be known to all that when sheep or lambs are affected with bloating, if they are slaughtered in the early stages of the trouble, the meat is considered perfectly good. The same is true of ailments caused by eating frozen rape. By giving prompt attention in such instances nearly the full value of the lambs so affected may be realized."

On the same subject, Wallace's Farmer says:

"There is no danger in feeding hogs on rape, nor horses, as these animals are not subject to bloat. While it is intended especially as a hog and sheep pasture, feeding steers and dry cows may be pastured on rape with profit. Our readers who have dairy cows must understand that rape will taint the milk, unless they are fed on it for an hour or two immediately after milking, in which case it is said that no bad results follow."

According to an experienced observer and student "birds have different tastes from men; as a rule they prefer bitter, sour or insipid fruit. We should never destroy such species as the wild cherry, wild grape, elder, blackberry, juneberry, mulberry, dogwood, Virginia creeper, buckthorn, sumac, bittersweet and others. By encouraging such plants we are approaching a solution of the problem, that will preserve for our own benefit both the cultivated fruits and the birds."

A VALUABLE PIECE OF TIMBER.

The following item from last week's Waynesville Courier calls attention afresh to the value of our timber interests and the rich rewards of properly conducted forestry work:

"Probably the finest walnut tree ever logged in the United States has just been disposed of by the Abrasive Co., of this place. It came from the head of Caney Fork, in Jackson county, and contained 7,503 feet, and is easily worth $1,000. It measured 50 inches at the small end of the first log. There were five logs twelve feet long and one eight long, on the main body."

But even this record has been broken, as will be seen by this interview with Mr. S. L. Rogers, Corporation Commissioner, which recently appeared in the High Point Enterprise. We quote:

"Railroad Commissioner Rogers, who was here Saturday was talking about the value of North Carolina timber. He said that he had only one story to relate and that was a big one. A man in Western North Carolina was selling standing timber—walnut trees. The man who was buying came to one very handsome tree. He told the owner he would pay as much as $50 for that tree. This excited the owner. He did not sell but sent for experts. The owner got $1,500 for the tree (curled walnut) as it stood. The man who cut it down realized $3,000 for it on the cars. It was shipped to New York and veneered 1-6 to ½ inch. The sales were watched and estimated as best that could be done and when all was disposed of it turned out that the tree brought near $60,000. The point is this: We have no idea as to the value of our timber, much of which is being sent North for a mere song. We can become rich in North Carolina if we work our raw material as others work it for us."

Watch the label on your paper.

CONSTRUCT ROADS BY CONTRACT.

W. L. Hutchison, Director of the Mississippi Station, has prepared a valuable paper on "Good Dirt Roads for Mississippi," wherein he urges the importance of good roads, and sets forth what he regards as the best methods of securing their permanent betterment in the South. He says:

"The people of the State may have good dirt roads in a comparatively short time, provided they adopt the best business methods in making them. There probably is no good reason why the county supervisors should deal with this important matter with less business ability and less system than they do with other public matters that come before them. The roads may be first properly shaped and drained and then graded, but such improvement may be made with the expectation that they will be finally surfaced with gravel or other material. To shape, drain and grade our dirt roads will improve them materially, and the cost will not be burdensome. Surfacing roads, however, is expensive, and it takes years for any people to accomplish it.

"Good roads cannot be made nor maintained by doing a little work on them once or twice a year. This is not a business-like way to deal with the matter, and no further comment is necessary on the expensive and wasteful methods of warning out hands for road duty at the very time, perhaps, when the least efficient work can be done. To have good roads it must be the regular business of some one to make and maintain them, and this can only be done by contract, specifying what is required.

"Many of our roads should be located differently, so as to lessen the cost of grading, as roads should go around steep hills or through them. Locate the roads properly, and grading them will be a simple and easy matter. The people of this State ought to appreciate the comparative ease with which they can have good dirt roads, for surely our difficulties are not nearly so great as those that have to be overcome in many sections.

"The three most glaring defects of the system now in vogue are, first, the labor tax is not honestly paid, being either avoided or slighted in various ways by a majority of the hands. A few do honest work and take an interest in it, but as a general rule the object seems to be to either get over the section of road in any style and thus get a disagreeable job done, or else make the few days of road work a time for recreation in which to laugh and joke with their neighbors. In the second place, the labor given to road work is not intelligently directed. There are about as many plans of working the roads as there are overseers, and as a rule all of these plans are more or less defective, resulting in a partial waste of such labor as is applied. The laborers bring such tools as they happen to have regardless of their adaptability to road work. The rule is to work the roads once a year, usually after the crops are laid by; but our heavy spring rains damage the roads greatly and such damage should be repaired promptly."

When the boys on the farm become impressed with the incontrovertible fact that the art of tilling the soil is the highest, most noble and most healthful vocation in which men can engage; that farm pursuits and life bring creature and Creator into closer communion and fellowship, resulting in more exalted conceptions of origin and destiny than any other, then and not until then, will the farm offer promise for young men to enter the field to cultivate the soil.

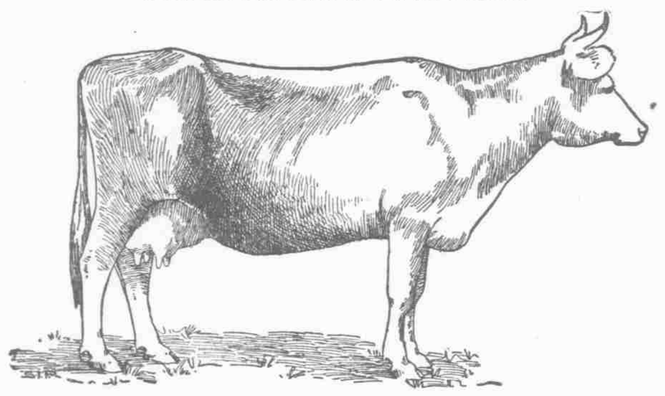
I rejoice in the belief that the sun is rising in that direction. Our agricultural colleges have demonstrated that scientific, intelligently-conducted farming renders surer, more satisfactory and more remunerative returns than almost any other vocation. In time educated labor will forge its way to the fore, and for the betterment of the world. Of this I have no doubt whatever.—Robert W. Furnas, ex-Governor of Nebraska.

Live Stock and Dairy.

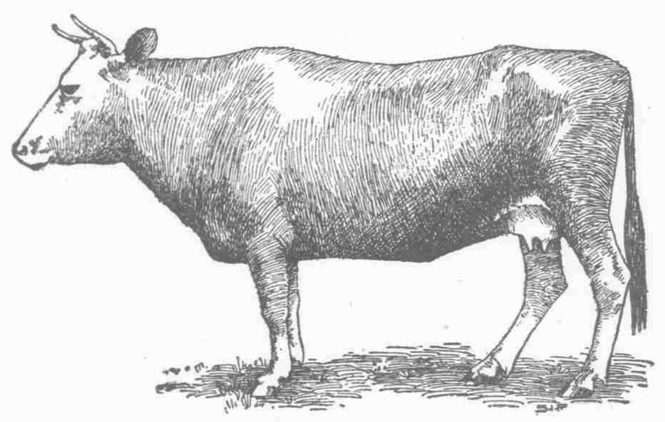
THE TYPE OF DAIRY COW IN RELATION TO MILK AND BUTTER PRODUCTION.

In another column this subject is very ably discussed by Prof. J. M. Johnson, and to further emphasize the points made in his article we give herewith two cuts which illustrate his ideas almost perfectly. They should be studied, of course, but the sensible farmer will go further and put the principles they teach into actual practice. Take the plain "dollar and cents" view, shown by the practical test reported by Prof. Johnson, and apply it to your herd. But the figures below speak for themselves, and with the statement that for the article and cuts we are indebted to H. W. Lawson, of the United States Department of Agriculture, Bulletin No. 124, we leave the matter with the reader. We quote:

DAIRY AND BEEF TYPES OF THE SAME BREED.



A—(Jersey)—Dairy type: spare and deep body, well sprung ribs, large udder development.



B—Beef type: large frame, small udder development, taking on flesh easily, smooth and plump.

The Minnesota Station has recently published a record for two years of cows divided into two groups according to type. Group 1 contained cows spare and angular in conformation and having deep bodies through the middle; and group 2, cows having a tendency to lay on flesh. During the two years group 1 included 2 Guernseys, 2 Jerseys, 1 Jersey-Guernsey, and 1 grade Holstein; and group 2, 5 grade Shorthorns, 1 Swiss, and 1 grade Holstein. All the cows were treated alike in every respect. The principal data for the two years are summarized in the following table:

Average records of cows of different types at the Minnesota Station.

	No. of cows.	Cost food.	Milk produc'd.	Cost 100lbs milk.	Butt'r produc'd.	Cost 1 lb. butt'r
		Dol'rs	Lbs.	Cents.	Lbs.	Cents.
1895:						
Group 1, spare and angular, with deep bodies through middle...	4	30.82	8,283.1	37.20	445.97	6.91
Group 2, having tendency to lay on flesh.....	4	28.21	6,817.6	41.38	303.01	9 31
1896:						
Group 1, spare and angular, with deep bodies through middle...	5	23.35	8,580.3	27.21	460.02	5 08
Group 2, having a tendency to to lay on flesh.....	5	22.11	6,248.9	37.80	270.86	8.02

In 1895 the 4 cows in group 1 returned in dairy products at market prices an average profit of $46 95 per cow over the cost of food, while the 4 cows in group 2 gave a corresponding net return of only $26.19 per cow. In 1896 the average net return per cow was $56.91 for group 1 and $26.72 for group 2. Records of a larger number of cows grouped as above for the period from the beginning of lactation in the fall until the cows were turned out to pasture in the spring, and also for full lactation periods, showed a corresponding degree of superiority as regards economy of production of cows spare and angular in form over those with flesh-producing tendencies.

These and earlier records of the station herd were thought to show that *economy in butter production depends more upon the type of cow than upon breed or size. The records also indicate that cows of the spare and angular type remain in good service for a much longer period than cows having a tendency to lay on flesh.*

In a study of dairy cows at the Connecticut Storrs Station the factor of breed was largely eliminated by comparing in most cases the records of cows of the same breed. The whole dairy herd, composed of Jerseys, Guernseys, Ayrshires, and grades of different breeds, was divided into three groups solely on the basis of form and type. Group 1, designated as the dairy group, included cows with spare and deep bodies and well sprung ribs. Group 2, styled the beef group, included large-framed cows taking on flesh easily and looking smooth and plump. Group 3 contained cows lacking in depth and width of body. The records for one year are averaged in the following table by types and breeds:

Average records of cows of different types and breeds at the Connecticut Storrs Station.

	No. of cows.	Cost food.	Milk pro duc'd.	Cost 100lbs milk.	Butt'r pro- duc'd	Cost 1 lb. butt'r
		Dol'rs	Lbs.	Cents.	Lbs.	Cents.
Types:						
Dairy	16	41.66	6,190	69	351	12.0
Beef	4	38.59	3,916	100	217	18.1
Lacking depth	5	39.83	5,322	77	267	14.9
Breed:						
Jersey	4	43.35	5,981	75	371	12 1
Grades	14	39.99	5,523	76	314	13 2
Guernseys	3	41.40	5,140	83	293	14.3
Ayrshires	4	40.65	6,166	69	266	16.0
Average of herd	25	40.80	5,653	76	313	13.6

The dairy type, compared with the beef type, produced on the average per cow 134 pounds more butter and 2,274 pounds more milk; yielded $20.-94 more profit in butter and $19 68 more in milk; produced milk at 31 cents less per hundred and butter at 6.1 cents less per pound.

FOR DAIRY PURPOSES OR FOR BEEF?

For Which Purpose are Your Cattle Best Suited?—This Article May Help You to Decide and so Save You Money—A Sample Test.

Correspondence of The Progressive Farmer.

What constitutes a good dairy or milch cow? Reader, how frequently have you propounded the above query, either to yourself or to some other person interested in perpetuating the most profitable race of dairy animals? How many times have you been asked that question by some one seeking information on the fundamental principle of successful dairying? How many times have you either received a clear cut answer or been able to give one?

In selecting a piece of machinery or a farm implement, you have fixed in your mind a definite idea or model. If the machine or implement offered you does not conform reasonably well with your mind model it is rejected for one which does. You have adopted the model because experience has taught that for a machine to do a definite kind of work, the essential parts must bear certain relations as to size, shape, strength and position to each other. If these are not just right, an undue expenditure of energy is required to accomplish the task, and the work is not done in a satisfactory manner. The tiller of the soil does not use the same plow to cultivate the growing crop that he does to prepare the soil to receive the seed. The work in each case is not the same. Different implements must be used or the work is doomed to failure, complete or partial.

It would be wise for the stockman to regard his animals as so many pieces of rather delicately constructed machinery, each with a definite work to perform. The work to be done by the dairy cow is very different from that expected of the beef animal. It is true that the material furnished the two animals in the form of food may be very much alike in nature and composition; but the manufactured products are to be very different.

The dairy cow is expected to manufacture milk and butter fat from her food. The beef animal is to convert his ration into flesh and fat which he stores in his own body. The dairy cow is valued according to the fullness of the milk pail, cream jar and the churn. The beef animal is valued according to the plumpness of his body and the fullness of the parts from which the choicest cuts are taken.

The dairy cow is spare and angular in form. When viewed from one side the top and bottom lines are seen to gradually converge as they approach the head, and if extended some distance in front of the animal they would intersect. Taking a position directly over the animal the side lines are seen to converge also as the head is approached and would intersect at a point some few feet in front of the cow. From a station directly in front of the animal, the shoulder lines are seen to come closer together as they approach the top or back line until they meet at only a few inches above the back. From behind it is seen that lines drawn from the hip bones down the outer surfaces of the hind quarters would meet at a point a short distance under the feet. It thus appears that the dairy animal is made up of a system of modified wedges four of which we have already noticed while there are several others which for lack of space will not be considered at this writing.

Now a glance at a good beef animal. Disregard the head and neck. Take a position at one side of the animal. The top and bottom lines are almost parallel. A line dropped from the upper front of the shoulder will strike the bottom line near the brisket point. One let fall from the rear top of the kind quarter to the bottom line will rest close to the quarter from start to finish and will strike the bottom line a few inches to the rear of the stiple point. Thus we have a parallelogram. Viewed from above another parallelogram is observed. Front and rear views also

[CONTINUED ON PAGE 8.