

# PROGRESSIVE FARMER

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

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## Agriculture.

### AGRICULTURE OR MANUFACTURING?

Should North Carolina Cease Further Efforts to be an Agricultural State and Bend all Its Energies Toward Manufacturing?—Speech of Mr. J. J. Liles, of Anson County, at A. & M. College, Raleigh, May 19, 1900.

North Carolina is an agricultural State. Its lands are productive, in all sections yielding under proper cultivation a generous return to labor. Even if we are excelled in the production of a few special crops, we cannot afford to give up any that we now raise. If the wheat and corn crops of the Western States are failures, those States are badly crippled, but with our soil and climate, we are not dependent on any one crop. If the sugar crop is a failure in Louisiana, if the corn crop is a failure in Kansas, if the cotton crop in Texas and Mississippi is ruined, then these States are thrown into a deplorable condition; but with our diversity of crops we are sure to hit the season.

It is true that we are excelled in the production of cotton, but can we afford to give up our 600,000 bales worth \$24,000,000, when the demand for cotton as now shown by the rising price, is far in excess of supply? We raise 35,000,000 bushels of corn annually, worth, at a low price, \$16,500,000; and we must continue to raise this necessary product, because when the Western crop is a failure, this quantity of corn is worth at least \$25,000,000. Although we raise only 4,750,000 bushels wheat, worth \$1,000,000, it is to our advantage to continue its production. Our oat crop amounts to 7,650,000 bushels, \$2,200,000.

Even if we had to give up these four crops which are produced in the face of such great competition, and which are worth \$46,700,000, we have others. Take hay, sweet potatoes and Irish potatoes worth \$5,800,000; cattle worth \$1,800,000; hogs valued at \$4,500,000; apples and peaches at a low price bring \$6,000,000; and tobacco, \$6,000,000.

Our tobacco is first in quality and second only in quantity to that of any other State in the Union. We have a world-wide reputation for this product. In civilized nations, in barbarous nations, wherever men smoke, there the fragrance from this plant grown in North Carolina rises from pipes filled with "Blackwell's Bull Durham."

North Carolina's strawberries are the finest in the world. They have been sold in Northern cities for 45 cents per quart. Of course this was an exceptional case, but is indicative of what can be done. From one farm of 30 acres in 1896 \$11,000 was received. Gardening under glass and in heated green houses is the coming opportunity for our truckers. One firm at New Bern last winter made on one acre of lettuce during the month of March \$3,000. Another grower had 3½ acres under glass and realized from his frames during the winter and spring \$75,000. In a single season from the farm of Messrs. Hackburn & Willett have been sold produce worth \$75,000. Our early vegetable crop of the East and the late crop of the West were, four years ago, selling for \$4,000,000. Now they bring twice that amount. Putting a low estimate on all of our crops and summing them up, we find that we sell \$77,000,000 worth of produce annually, besides a large sum which is realized from our forest products.

On the other hand, when we look into the conditions of some of our leading manufacturing States, we are brought to realize the necessity of continuing as a farming people.

The area of North Carolina is 52,200 square miles, and that of Massachusetts only 8,315. The rented houses of our State number 168,436, and Massachusetts, less than one-eighth the size of North Carolina has 301,736, nearly twice as many as we have. Our mortgaged houses number 6,799, while Massachusetts, one of the leading manufacturing States of the Union, has 66,249, nearly ten times as many. We find Connecticut in the same condition. Her area is

only 5,000 square miles, less than one-tenth of our State. Her population is 746,300; not half that of North Carolina. But again we find in Connecticut an example of a manufacturing State. She has within her borders 28,518 mortgaged homes, over four times as many as we have. Joining Connecticut is the little State of Rhode Island, which, taking into consideration its size, is nowhere to be excelled as a manufacturing State. It has an area of 1,250 square miles—just one and one-half times the size of Wake county, and a population of 345,500—about seven times that of this county. It also contains 7,583 mortgaged homes—nearly 1,000 more than the whole State of North Carolina. If each family averages eight persons, we find every sixth home mortgaged. If each family in North Carolina averages the same number of persons, we find only every thirtieth encumbered.

Nine per cent. of the American population possess 73% of all the wealth. This is considering the whole country, but in manufacturing communities it is a great deal more in favor of the classes. Ladies and gentlemen, these are facts, and do they not prove that the added wealth from manufacturing comes not to the masses but to the classes?

Although North Carolina has had but little experience in manufacturing the above statement is strikingly illustrated in an adjoining county. Within the last 13 years in Durham county, five country townships lost \$124,000. Durham township gained in the same time \$5,680,000. Of this amount \$1,950,000 went to five factory owners of Durham. Ten or fifteen others gained about \$300,000, leaving a gain in 13 years of only \$430,000 for the remaining 16,000 inhabitants, or an average of a fraction over \$2 per year.

Admitting that manufacturing brings wealth to a State, but with it brings those pernicious influences which corrupt our politics, degrade our morals and destroy our manhood. Just in proportion as the farmers of North Carolina are forced into factories, just to that extent are the free and independent citizens of our State made political slaves. They fight the battle for their employer as completely as the vassal did for his feudal lord. These are the sins which in the end bring forth the death of nations. Let us not poison our body politic with the lust for gain, nor fever it with excitement of artificial life.

The conditions which exist in factories and mills are not conducive to the proper development of young men and young women. Children are required to rise before 6 o'clock every morning and work until dark. Men and women who have to be subjected to such long hours of continued toil from childhood amid sweltering and stifling atmosphere of mill and factory (for a poor existence), cannot be expected to develop the ambition and force of character necessary to inspire and elevate their domestic and social relations. The effect of these conditions upon women and girls is always more than upon men and boys. The forcing of girls into the factory tends to destroy the very principles of character out of which noble womanhood is made. Just in proportion as woman is transferred from the home to the workshop, is her inspiring and refining influences in the domestic circle destroyed, thereby lowering the character of the children, the family, and ultimately that of the whole community.

With these facts before us, gentlemen of the committee, North Carolina cannot afford to give up her agriculture or devote her entire time to manufacturing. Our successful competition in the production of cotton, corn, wheat, oats, tobacco, not only secures our independence, but by the statistics of paupers and mortgaged homes in such States as Massachusetts, Rhode Island and Connecticut, makes us, as a people, far compared to the leading manufacturing States. In addition to this the western part of the State has already made a successful beginning in stock raising and is destined to

become the great apple-growing section of the United States. In the East we have unheard-of possibilities in trucking and gardening. This industry is yet in its infancy. It can hardly be said that we have begun gardening in frames and under cover, yet in lettuce alone fortunes have been made in a single year. Our strawberries are the finest in the world, and with scientific agriculture and the proper development, the whole eastern part of the State can be turned into one vast truck farm, that would be a source of wealth to the State unsurpassed by all its other industries combined.

Wealth from these sources would diversify our industries, develop our institutions, and mean prosperity and happiness to all the people in every section of the State. On the other hand, wealth from manufacturing alone, would mean prosperity and power to a few, but toil and subjection to the many. Manufacturing alone would mean stagnation to all other industries, and corporate control of our public institutions. It would mean the congestion of the great mass of laboring people into large cities, thereby depriving them in a large measure of health, happiness and independence, and make them the tool of the ward politician, and the servants of concentrated wealth.

We cannot afford to sacrifice everything for the accumulation of wealth. Let us then, in the name of humanity, continue to develop our agriculture, thus preserving the freedom of our institutions, the purity of our politics, the bravery and patriotism of our men and the purity and loveliness of our women.

The free homes bill has passed the Senate. It makes the following Oklahoma Indian lands subject to homestead entry; Cherokee outlet, 5,361,770 acres; Pawnee reservation, 169,320 acres; Sac and Fox reservation, 364,536 acres; Iowa reservation, 207,628 acres; Pottawatomie reservation, 256,896 acres; Cheyenne and Arapahoe reservation, 3,500,562 acres; Kickapoo reservation, 85,000 acres.

### ROTATION OF CROPS NECESSARY.

What a Western Farmer Has Learned.

Correspondence of The Progressive Farmer.

More and more I find farmers coming to the conclusion that a rotation of crops is necessary for good farming, and even here in the West when we failed to practice it at a time that Eastern farmers advocated it, the most successful farmers are now adopting it. Wheat, of course, is one of the crops in the rotation in many sections, and corn another, while clover is a foregone conclusion. It makes it bad, of course, if in the rotation the wheat or corn crop proves bad. Then we have to double up with one or the other, and usually we feel that we have not made as much from the rotation as we should. Yet there is a likelihood of a failure of either of these crops if the rotation is followed carefully. The wheat and corn failures are more emphasized on those farms where little or no attention is given to a systematic rotation. When you omit grass or clover and the land gets run down, the wheat or corn is pretty sure to make a poor stand in seasons that are not very favorable. The result is that the man who keeps his soil in fine condition through a good system of rotation of crops is usually the one who has the best crops in off years.

I have found as a rule that the off year crops are very often the most disastrous or the most profitable. When there is a good crop everybody has plenty to sell and prices invariably run down below the margin of a decent profit. Nobody exactly does well, although you hear a good deal of the amount that is going to the farmers. But it is not always the full amount of returns for a crop that counts, as it is the amount received per bushel, pound or barrel. In off years it costs no more to raise the crop, while prices are so high that the man who has anything to sell is sure to make a good profit. Now if he can produce a moderately good crop when every one of his

neighbors has a poor showing he is going to make a good thing out of it. His profits per acre will be larger than during the season of abundance. So I have been trying to farm for the off years as well as for the abundant years. With proper attention the crops can be made fairly good even when the season is against you, but it takes care, attention and intelligent work. One of the great advantages that any farmer can obtain over the common lot is to keep his land in such good tilth and mechanical condition that fair crops are bound to grow. A good rotation of crops is as essential for this as expensive and continuous fertilizing.

With best wishes for The Progressive Farmer. W. C. Indiana.

A Richmond, Va., dispatch says: The impression prevails in tobacco circles here that the International Tobacco Company, reported soon to be formed, will not be a competitor of the American Tobacco Company, but that these two corporations and the Continental will all work in perfect harmony.

There is a strong belief, indeed, that the three great corporations will be practically branches of one immense combination, each looking after its own peculiar field. The fact that Mr. Arents, and others largely interested in the American, are also interested in the International is thought to give color to this theory.

### THE PHILOSOPHY OF MIXING FEEDS.

Perhaps instead of talking so much about balanced rations and nutritive ratios, it might be well to talk a little about mixing feeds. First, a few facts: It is a fact that you yourself, while fond of bread and fond of butter, like them a good deal better together than separate. You could live on bread without butter if you had to, you could live for a little while on butter without bread, but you can live better by spreading the butter on the bread. You are fond of beans and you could eat them without pork, you are fond of pork and could eat it without beans, but long experience has taught you and your grandmother that pork and beans together are better than either pork or beans separate. You are fond of potatoes; you are also fond of beef. You could make a meal on brown potatoes without roast beef, or you could make a meal on roast beef without brown potatoes, but your grandmother taught you long ago that roast beef and brown potatoes are a very good mix for a substantial dinner. We might state facts like this much more fully, but the above will convince you that you like your food mixed.

Observation has taught you long ago that oats are good for pigs, and so is corn, but if you have kept your eyes open and noticed closely, you have observed that pigs make better gains on oats and corn mixed than they do on either separate. On the same line we might give you a few similar facts from the stock yard. With potatoes at ten cents per bushel, the digestible nutrients or food will cost you ninety cents per hundred pounds. With corn at thirty-five cents, the digestible nutrients will cost you seventy-eight cents per hundred pounds. With middlings at \$14 per ton, the digestible nutrients, or that part which the animal actually utilizes, will cost you ninety-seven cents per hundred pounds, and with skim milk at ten cents per hundred pounds, the digestible nutrients will cost you \$1.12 per hundred pounds.

This makes potatoes with corn at thirty-five cents worth for feeding purposes between eight cents and nine cents per bushel as compared with corn, and it makes one hundred pounds of corn worth about nine times as much as one hundred pounds of skim milk. Now let us try a little mixing. It has been found by the experiment stations, in actual feeding, that six hundred pounds of milk fed alone will make about as much gain as one hundred pounds of corn, but that if you mix the milk and

corn in the ratio of three or four pounds of milk to one of corn, that between three hundred and four hundred pounds of skim milk will equal one hundred pounds of corn meal. Potatoes fed alone to hogs are worth very little unless they are boiled, but mix them with middlings or shorts or oil meal and note the high appreciation that the hog has for that kind of a mixture. His appreciation is scientific as well as practical. He believes in mixed feeds. If you offer him a mixture of corn and potatoes, he might probably turn up his nose, that is, if he had been fed like a millionaire. He does not know anything about science of balanced rations, but he distinguishes very quickly between mixes and mixes. He will take his corn with skim milk or buttermilk, if you please; he will take his potatoes with middlings, or he will take corn with middlings. While he will take middlings and skim milk, his internal consciousness would indicate after a little while that the mix was not quite right. The little pig might think differently because he is different.

Experience has taught the farmer that clover hay with corn fodder or timothy, or straw, or corn, is a most excellent mixture, that clover and corn will do better together than separately, and that corn fodder gains in value very rapidly by being fed interchangeably with clover hay.

In other words, that you get not only the value of each, but you get an additional value as a result of the mix.

But after all, this is only the old doctrine of balanced rations and nutritive ratios stated in a different way. The skim milk has a nutritive ratio of one to two, and potatoes one to 11.5; that is, one of flesh formers to the amount stated of fuel or heat makers. What the growing pig, calf or lamb requires is about one to five, or about the ratio of oats or middlings; hence, the importance of mixing. The reason why you like bread and butter mixed is because butter is almost entirely a pure heat maker; the bread, especially brown bread, is largely muscle making. You want them mixed, and when the weather is very cold and the demand for heat greater, you would not object to some side-meat with it.

The doctrine of balanced rations is founded on nature's laws. You cannot avoid them except at your own loss. Mixing feeds intelligently is simply balancing rations, and you will mix with larger intelligence and greater profit if you will take time to study nutritive ratios. It is all right to call it mixing feeds, and the science of mixing feeds, but it is just as well to master that word nutritive ratio and get down to scientific principles. It is not after all any bigger or harder word than telegraphy or telephone, or any other of the new words that science is continually forcing upon us.—Wallace's Farmer.

The condition of the road is the price tag that tells the value of the farm.

The advertisements of the round bale cotton trust, printed as news matter, are again making their appearance in many newspapers. The Progressive Farmer exposed this scheme last year.

There is undoubtedly, after a little experience is acquired, a good big profit in the growing of ginseng. It is estimated by government experts that China will take from American growers at least \$20,000,000 worth every year, and as the wild ginseng is nearly extinct the supply must come largely from the cultivated garden. The dried roots bring in the New York market \$7 per pound. A valuable book on the subject giving full particulars of the culture and marketing of the roots is issued by the American Ginseng Gardens (Incorporated) Rose Hill, N. Y., which will be sent any of our readers upon request. It outlines plans of investment of from \$5 to \$1,000. The figures given are very attractive, and doubtless will encourage many of our readers to start at least a small bed of this money-maker. Send for the book and mention this paper.

## Horticulture.

### THIN YOUR FRUIT.

In view of the heavy fruit crop in North Carolina and adjoining States, The Progressive Farmer is just at this time more interested in getting farmers to thin their fruit than in almost any other matter. We referred to this last week.

In an address on this subject before the Massachusetts Horticultural Society, Mr. J. H. Hale, the famous peach grower, said: "I wonder how many of you practice the thinning of fruit on your apple trees. Now, apple trees will do a good deal if you do nothing for them. But the man who wants good apples—apples that will pay—in the future will practice thinning his fruit. I should take a young tree which attempted to produce one hundred apples and remove at least fifty of them, leaving not more than fifty to ripen. The next year, if it attempted to produce two hundred, I should leave one hundred or less, and the next, if it had one thousand apples, I should leave three or four hundred only. By this method I should get that tree into the habit of annual bearing. The man who will make fruit growing a profitable business will thin all his fruit. A peach tree that will set a thousand peaches needs to have six or seven hundred thinned off. The commercial side of fruit growing demands thinning of nearly all your fruit. You will get more bushels to the tree within reasonable bounds; the more you, throw away the more pounds or bushels you will have left; increased size more than make up loss in number."

### A NOVEL INDUSTRY.

Growing of Tube-Roses Reaches a Great Magnitude.

There is an industry in North Carolina of which very little is known to the general public. I am very sure many will be surprised to find the magnitude which it has reached. This is the tube-rose industry, under the management of Mr. H. E. Newberry, of Magnolia, Duplin county, writes a correspondent of the Raleigh Post. He was born in East Hadden, Conn., in 1839, and came to North Carolina when he was 20 years old. He settled in Duplin county. He was a poor boy. By his diligence and economy he has made an independent fortune. Mr. F. A. Newberry, the brother of H. E. Newberry, was the first one to undertake the tube-rose industry, but he gave over the business to his brother, who has brought it to its present proportions. For the last several seasons he has shipped over two million tube-rose bulbs each season. He has also engaged largely in the production of caladiums, cannas and dahlias, and last year he sold the product of 25 acres. Rare varieties of cannas and dahlias are being developed. For the coming season he has ten acres of these two bulbs.

Mr. Newberry has recently sent to Trinity College a large collection of choice flowers. They have been bedded in a beautiful plot on the college park, which has been named for him on account of his generous donation.

In addition to the bulb-growing, Mr. Newberry does a very large business in the vanilla leaf. It grows wild. It is dried, packed in 500-pound bales like cotton and is used in flavoring smoking tobacco. Mr. Newberry was the first man to introduce this industry into North Carolina. He ships now many carloads each year.

The first huckleberries ever shipped out of the State were shipped by Mr. Newberry. Over three thousand bushels are now shipped by him each year. He also conducts a large truck farm and manufactures on an extensive scale strawberry crates and cups. He also conducts a wholesale and retail mercantile establishment. The facts in connection with these industries were given the writer by Rev. J. W. Wallace, Magnolia, N. C.

A long pull, a strong pull, and a pull altogether, will hasten the time when mud streaks called roads shall have passed away.