

## Thomas Phosphate vs. Acid Phosphate.

To the Editor:—Some time ago, in my regular course of business, I received a letter on the above subject from a State agent of a Southern company who are importers of Thomas phosphate. Some statements in this letter seemed to me so remarkable and extravagant, and having no means of obtaining expert information, I referred the matter to Mr. C. L. Newman, Professor of Agriculture of A. & M. College. His reply is also interesting. Thinking the North Carolina farmers would like to have this information, and wishing to do all the good I may, I herewith pass it along:

The agent says: "As to the difference in acid phosphate and Thomas phosphate, I must say from actual experience with both that I would not haul acid phosphate from the depot to my farm if the company would give it to me. Acid phosphate robs the soil of lime, sets up an acid condition, creates destructive bacteria, allows the phosphorus in the phosphate rock to revert back into dicalcium and become insoluble. Now, when all this is done, what do you think happens when my corn, wheat and cotton demand phosphorus? Thomas phosphate does not revert. It does not rob our soils of lime. It furnishes lime. It increases the bacterial life of nitrate-forming bacteria, etc., etc. No comparison between the two."

The following is Professor Newman's reply:

"I am very much surprised that the company with their reputation for fair dealing should allow one of their representatives to so misrepresent acid phosphate, the standard source of phosphoric acid for plant food the world over. The letter you enclose to me recalls the old saying that a little learning is a dangerous thing.

"This agent says that he would not haul acid phosphate from the depot to his farm if the company would give it to him. This statement is too absurd for comment. Do you suppose that the farmers of the United States guided by the scientific leaders of the world would continue to purchase a worthless thing? I would like for this representative to explain how acid phosphate robs the soil of lime. His statement that acid phosphate creates destructive bacteria, gives it omnipotent power unheard of before. It is true that some of the soluble phosphorus in acid phosphate reverts, but it reverts, in part at least, to the form in which it is found in the Thomas phosphate. Acid phosphate adds lime to the soil in the form of sulphate of lime, and the use of the word acid, as applied to phosphoric acid in a commercial fertilizer does not mean that the fertilizer's acid becomes neutralized through the formation of a base.

"This agent is evidently strenuously endeavoring to sell Thomas phosphate, and it is more than probable that his misstatements concerning acid phosphate will do harm. However, such error cannot last if the error is exposed."

Evidently Professor Newman considered the agent's statement so preposterous that he did not deem an exhaustive reply necessary. Possibly we will hear from both these gentlemen again. My own understanding is, that both these phosphates add lime to the soil, and in about equally useful forms, the Thomas phosphate adding only about four pounds more to the hundred weight than 16 per

cent acid phosphate.

If the introduction of Thomas phosphate has disclosed the fact that there is lime in acid phosphate and that it is a valuable constituent, a useful lesson has been taught; for the average farmer without a knowledge of chemistry never before heard of it.

T. IVEY.

Cary, N. C., April 13, 1912.

### CO-OPERATIVE MARKETING.

The remarkable Scotchman, Mr. Carnegie, whose grasp of the practical has placed him among the great men of all times, early saw the unwisdom of the competitive system and chartered a giant corporation which absorbed kindred individual enterprises by exchanging stock, and made an unparalleled success of the iron industry. Norway, Germany, Brazil, and other countries, have successfully applied this principle in handling the problems of agriculture.

Living proofs that the foundation of the phenomenal success of all big modern enterprises lie in corporate combination are seen in every class of American business save farming, and it only needs to direct thought to men like Morgan, Rockefeller, Armour, Pullman, Edison, Hill, Wannamaker, the Harvester Company, Kress and Bowers, to show that it is the scientific and practical force of the financial, economic and commercial life of the times.

The highest order of intelligence is shown when those with common interests co-operate through a corporation embracing them all, and we believe when the farmer realizes this, his sense and self-interest can be relied on to secure his support in changing conditions injuriously affecting his business, by uniting under the Carnegie system, the weak, scattered enterprises now unable to earn profits or protect the interests of their founders, into one corporation, and make them strong enough to guard against bankruptcy, and insure profits.

Not one of the accepted methods used in marketing American farm products is based upon the producer's interest: all are arranged to surround the details of selling, with systems earning profits, but not for the farmer. A condition only possible because the American farmer does not use modern methods.

As a rule, the business efforts of farm organizations heretofore have been sentimental, experimental and educational, but they prove that to make his business profitable, the farmer must get away from present systems and organize his own corporation through which to buy and sell.

As the Texas Farm Co-operator says: "The farmer must become just as wise as Big Business, and whenever he wants to do anything to keep clear of the law, just take out a corporation charter and make their own laws to govern their own business."

European farmers not only practice intensive farming but annually transact business on Carnegie lines, running into billions of dollars, while we in the United States have scarcely made a beginning.

In Germany, agricultural banks loaned farmers one and three-quarter billion dollars last year; farm corporations handle the agricultural products of Denmark, and throughout Continental Europe, the principle is used to protect the interests of farmers.

Such institutions will be immeasurably more useful in the United

States, because of the independent position of the American farmer, and the importance of his products in the financial, commercial and physical life of the world.

Eliminate the mistakes, adopt the successful features and unite the properties of each of our enterprises in one corporation, control our products, and create a company so strong that it can finance the crop; hold or sell it, as the owner decides, and manufacture or buy his supplies from first hands.

To me this carries so many advantages that it looks like every one, save those profiting by present systems, would give it their hearty endorsement.

I am not advocating the special fitness of any certain company as the one into which the others should be amalgamated. Each have certain good and weak features, and all labor under a common burden of mistakes made and errors fallen into, that are the natural results of starting any business. I advocate a central company, like Carnegie organized, to absorb all the others, which shall adopt the successful features and discard the unsatisfactory ones of each.

Owners of a warehouse, or any business willing to amalgamate, can appoint a trustee to meet the attorney of the United Company and exchange stock.

To raise cash, either of the following ways can be used:

Each stockholder takes \$5.00 additional cash stock; or,

Each community where a uniting business is located buy \$25.00 of cash

stock for every \$100.00 of stock exchanged; or,

The united company sell for cash twenty-year 5 per cent bonds to the extent of 75 per cent of the consolidated values.

The last is the least to be desired, but the easiest to put into effect.—Benjamin West, in Farmers' Union News.

It is quite a chore to get stove-pipe up every time just right. Tell you how we do it: When we take the pipe down we mark every length with a piece of white chalk. Do it before you take it down and there will be no trouble next time.

"Do you not remember me, Mr. Roosevelt?" said the effusive stranger to the Colonel. "N-no, but delighted, I'm sure. When did I have the pleasure?" "Why, when you returned from Africa, and there was that big crowd on the wharf, I was the man in the brown derby hat."

The life of a bee during the busy season is very short. Often during the honey season they do not live longer than six or eight weeks.

Grow sunflowers in the rear yard. They will hide the fence and make good chicken feed.

Nasturtiums and morning glories should be planted wherever there is anything to train them on.

During the month of November, 6,452 tons of salt were shipped to the United States from England.



## Profits Doubled With The Benthall Peanut Picker

If you grow peanuts and do not use a Benthall Peanut Picker, you actually lose money by not owning one

The Benthall makes peanut growing doubly profitable.

The wages you pay—the losses from delays in not getting your crop early to market—the losses from birds and stealing—cost you more than a machine.

If you own a Benthall, you and your boys can do the work of a hundred hands, and do it better. You send your crop to market early—secure highest prices. You stop the theft of your crop.

Growers now see that hand picking is far too costly.

The folly of attempting to "thresh" them has been plainly shown.

For machines that "thresh" them destroy profits.

They crack the nuts—and cracked nuts will not keep.

They grind the vines to smithereens—and these vines are the equal of alfalfa for feed—worth from \$12 to \$20 per ton.

Contrast such machines with the Benthall.

The vines are fed to the Benthall just as grain to the threshing machine.

The peanuts are pulled off the vine without injury to the shell. The machine

picks as delicately as human fingers—hundreds of times more rapidly

Many buyers give preference to Benthall picked nuts.

The vines are saved in perfect condition for hay.

The recleaning and bagging attachment makes it unnecessary to run the peanuts over for seed the second time.

This is the picker of proved worth—proved out in the peanut fields of Virginia.

Either Spanish or Virginia varieties are picked equally as well.

It is mounted—ready to hitch—as you would a farm wagon. You can easily move it from place to place.

There are models suited for horse or engine power—machines that are made interchangeable.

Every year sees more farmers using the Benthall. It has supplanted all other methods in many sections. And the demand this year promises to be greater than we can supply.

### THE MACHINE THAT PAYS FOR ITSELF.

If you don't want to let profits slip thru your fingers—if you want to make money growing peanuts, write us for our folder "How the Benthall Pays For Itself." Sent Free upon request.

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