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#### WANTED: CLOVER EXPERIENCE LETTERS

**B**ELIEVING as it does that clover, particularly crimson, bur and white clovers, should be far more extensively planted in the South than they are, The Progressive Farmer will on July 28 issue a Clover Special that will deal particularly with these great crops.

As a winter cover crop to keep the land from washing away; as a winter grazing crop for cattle, horses, hogs and chickens; as a nitrogen-gatherer and a crop to plow under in the spring as a fertilizer for the corn crop, crimson clover has proved its right to be classed among the greatest crops ever brought to this country. As a winter grazing plant, bur clover should have a place on every permanent pasture in the Cotton Belt. And on many Southern soils white clover is a splendid grazing crop.

It is consequently these three winter legumes particularly that we wish to have our readers tell us about, that we may pass these experiences on to others of our readers. We are offering our regular cash prizes for the three best letters, with payment at regular rates for all others used. We would also like to have a number of especially good pictures of clover fields.

Remember, we want personal experiences, briefly and pointedly told, and get all letters to us not later than July 14.



## The Eyes of America Turned on Her Farmers

**A**T last the American farmer occupies his rightful place in the esteem of the world. Manufacturers, merchants, bankers and city dwellers of all kinds heretofore have taken their food for granted and have overlooked the man behind the plow—the man who feeds them.

Conditions today are such that the producer of foodstuffs is recognized as the mightiest force—not only in the welfare and prosperity of the nations of the world but in the very existence of nations and their peoples.

A noticeable feature of the situation, which has shown the American farmer to be on a high moral plane as well as holding an important industrial place is the fact that he has not taken advantage of conditions to extort unreasonable prices from his fellow Americans. He has patriotically increased his production in order to prevent famine prices instead of keeping production down to force prices up.

He has shamed the food speculator—though unfortunately his example has not been followed by all manufacturers—particularly among the makers of so-called luxuries; though

many big manufacturers in this country have followed the farmer's lead.

One of the most noticeable cases among those who have kept faith is that of the makers of Coca-Cola. In spite of the enormously high price of cane sugar—the principal ingredient of Coca-Cola—and in spite of the higher cost of its other ingredients the Coca-Cola Company have not raised the price to consumers nor lowered the quality of that delicious and refreshing beverage one iota. Like the farmers they have kept faith with the people to their own cost.

Perhaps the lessons of fair-dealing and helpfulness that the heads of that institution learned as boys on the farm (for they are products of the soil) have strengthened them to stand firm in this crisis. So let us remember that the beverage Coca-Cola, known as the National Beverage because of its great popularity, has proved itself indeed national by doing its bit to keep down the cost of living.



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## HOW TO GET RICH LANDS

XXIV.—Humus: How to Keep up and Increase the Supply

By TAIT HOPKIN

**I**T IS not sufficient to merely maintain the present supply of humus in Southern soils. With the exception of small and insignificant areas and occasionally a piece of new ground, which has received the wash from higher land, our soils are practically all deficient in organic matter. This condition is likely to occur on all uplands where the weather is warm and the rainfall heavy and on arid lands where little vegetation grows.

Neither is it sufficient to merely add humus-making materials to our soils. We must make special effort to overcome the climatic or natural tendencies of organic matter to rapid decay and the products from this decay to be washed and leached away. Considerably more effort must be made to conserve our supplies of organic matter for soil building, as well as to add very greatly to these supplies.

#### How Our Farming System Depletes the Humus Supply

**T**HE destruction of humus is aided by cultivation, which introduces air into the soil, and by our warm, moist climate. That is, these conditions favor the rotting of all organic matter. Our crops are largely inter-tillage, row, or clean cultured crops. The ground is stirred often, kept clean and when the crop is harvested there is little left on the land to replenish the supplies of humus in the soil. In short, while our climate tends toward large growth of organic matter, this same climate and our methods or system of agriculture tend to lessen the organic matter added to the soil and destroy that already there. Unless we very greatly increase the supplies of humus-making material to be added to the soil we must prevent the present rapid loss of that added. In fact, it is doubtful if we can maintain our present proportion of clean cultured crops like cotton, corn, tobacco and peanuts, and build up the humus supplies necessary for the most highly productive soils. Owing to the fact that by careful management two crops a year may be grown on a large proportion of our lands, possibly we could continue our present ratio of clean cultured crops, if we ever became so impressed with its necessity as to make a genuine effort to keep a crop growing on the land as nearly all the time as is possible under a well planned cropping system.

But it is quite safe to predict that the intelligent effort which would be necessary to grow sufficient cover and humus-forming crops to supply our needs will not be made so long as we continue our large proportion of corn and cotton. We must therefore aim to grow our corn and cotton on less acreage, by increasing the yields, in order that other crops less destructive to humus supplies may be grown. By a longer rotation, or by a greater use of cover and humus-making crops, we must manage to have a stubble, sod, or humus-supplying crop for each clean cultured or row crop grown. With our warm and moist climate we cannot hope to supply our lands with sufficient humus-forming material unless we adopt some such system and maintain sufficient livestock to eat the legume and other forage crops produced and return the stable manure to the land.

We have regarded our best cultivated lands as too valuable for pasturing. This is only true when our livestock is inferior; we make inefficient or no efforts to obtain good pastures, or our lands are so rich and our system of farming such that no

regard need be given this method of maintaining soil fertility. In other words, if cotton could be grown year after year, indefinitely, and large yields economically maintained, then possibly these lands would be too valuable in cotton growing to be put into pastures for one or two years out of four to six occupied by a rotation. But the experience of the last 50 years shows plainly that some better cropping system must be adopted to even maintain soil fertility, much less increase it.

Humus is added to the soil through plowing under the residues of crops, or those portions not gathered. With us, these are cotton stalks, stubbles of such crops as oats, wheat and the legumes harvested for seed or hay, etc. Corn stalks are also often plowed under, but should generally be used for feed and bedding and the stable manure plowed under. With all crops, except peanuts and root crops, the roots are left in the land. With the root crops the tops are quite generally left to add humus to the soil, but with peanuts all is quite generally removed.

These crop residues are of importance in maintaining the humus supply and should receive more care in their handling. Too frequently straws, corn and cotton stalks and other crop residues are burned and their humus-forming values destroyed, while the nitrogen they contain is driven off into the air.

There is probably no more important or economical method of increasing the humus supplies in the soil than by pasturing one or two years in a rotation. This is particularly true when sod-forming grazing plants or legumes with deep-growing root systems are used.

#### Crop Rotations Help Conserve Humus

**G**ENERALLY speaking, the agriculture of the South has almost completely ignored the value of the rotation of crops and the careful saving of crop residues as a means of maintaining the humus supplies in the soil. We have grown our clean cultured, row crops year after year, because they better suited our pressing and immediate needs for extracting a living from the soil, without regard to the effect on the humus supplies. What little attention we have given to this very important matter of organic matter in the soil has been in the form of an occasional crop of cowpeas or less frequently velvet beans to be turned under. More frequently the cowpeas have been harvested for hay and the velvet beans grazed. It is more profitable to graze the velvet beans and it may be more profitable to make hay of the cowpeas, but it greatly reduces the value of either crop for supplying humus-making material.

When a crop is grazed or eaten by livestock the part consumed has about two-thirds of its humus-forming properties destroyed. This does not mean that two-thirds of its fertilizer or plant food value is destroyed or retained in the bodies of the animals, for only 10 to 15 per cent of the fertilizer value is retained by the animals; but the organic matter or the humus-forming material is destroyed to the extent stated; that is, about two-thirds.

Beyond doubt the quickest method of supplying humus to the soil is to grow crops and turn them under. For this purpose there is nothing better than velvet beans with sorghum in rows to hold up the beans. A tremendous growth can be made, and if such a crop were grown every two or three years and care taken to