

# Why You Should Plant Special Purpose Cowpeas.

Here Are Some Significant Facts to Guide You in Saving Pea Seed for Next Year's Planting—Some Varieties Yield More Hay, Others More Seed, but Even the Same Variety is Surprisingly Sensitive to Changes in Climate and Soil—Results of Careful and Extensive Tests.

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For a greater portion of the past fifteen years I have been very deeply interested in the cowpea and probably have carried through more cowpea experiments than any one in the South. Particularly has the production of hay from the cowpea been given attention. In 1902 I grew about 250 plots and half of them were for the especial purpose of studying cowpea hay making.

### Some Varieties for Hay, Others for Seed.

In 1902, sixteen plots produced more than 6,000 pounds of hay per acre, eight of which ripened no peas, or so small a quantity that they were not worth the gathering. The highest acreage yield recorded in 1902 was 8,750 pounds made by the variety Clay. This 8,750 pounds of hay bore only 2.9 bushels of shelled peas. The lowest yield of hay was 750 pounds per acre, produced on one plot of New Era and Extra Early Black Eye. These two plots yielded respectively 1,337.5 and 1,025 pounds of shelled peas per acre. The weight of the peas and hulls produced by these two varieties in this instance was double the weight of the cured vines that bore the peas and hulls. One plot of Wonderful (or Unknown) yielded 8,350 pounds of hay per acre and no blossoms had appeared upon the vines when harvested in October. Two other plots of this variety ripened no peas. Two plots of Clay produced 8,250 and 7,450 pounds of hay per acre and no peas worth gathering.

### It Will Pay to Select a Variety Suited to Your Purpose.

These two varietal differences have an important bearing upon the selection of varieties to be grown for whatever purpose, and particularly when the prime object of their culture is the production of hay. Lack of recognition of these differences in the habits of varieties is a fruitful source of failure, or of at least unsatisfactory results and of disappointment. On the other hand, a due consideration of these varietal variations will enable the grower to select varieties well suited to each of the various purposes for which the cowpea is grown.

### Fifty Varieties Tested on 550 Plots—Conclusions Reached.

Since the summer of 1898 more than 550 plots of cowpea vines have been cut for hay, including about 50 varieties. A number of these varieties, and particularly those of dissimilar characters, were grown in multiple plots, cut at various degrees of maturity and under a variety of weather conditions. The results of attempts to cure these various lots of hay range from perfect success to complete failure. A review of the results of these tests extending through five years seems to warrant these conclusions:—

(1) Cowpeas of any variety harvested while young or in vigorous growth are difficult to cure into hay, no matter how favorable the weather conditions.

(2) Mature vines are cured with little difficulty in favorable weather, and usually cure in fair to excellent condition after an exposure of two to four days of rain or cloudy weather.

(3) Varieties producing the heaviest yield of peas are most easily cured into hay, while those producing a few peas, or none at all, were the most difficult to cure, since they habitually continue in vigorous growth until checked by frost.

(4) Late, shallow cultivation prolongs the period of growth and makes the vines more difficult to cure. Cultivation should cease when the first pods appear if the crop is intended for hay.

(5) Vines bearing a fair or full crop of peas ripening well together are easily cured when one-fourth or more of the peas are thoroughly ripe and no second growth has been induced by excessive moisture.

(6) Vines bearing a fair or full crop of peas ripening through a prolonged period through which the plants continue in vigorous growth are usually difficult to cure in other than the most favorable weather.

### How the Hay Yield is Affected by Varieties.

The numerous varieties of cowpeas differ so widely in various respects that their peculiarities must be considered when the crop is grown for hay and the time of mowing, treatment while in the swathe, in wind-rows, and in cocks, adjusted not only to the condition of the weather, but also the peculiarities of the variety, and to variations due to climate and soil.

The cowpea plant is very amenable to environment, and while there are constant varietal characteristics the yields of both grain and hay are remarkably variable with the same variety grown from seed which come from unlike or widely separate localities, and sown upon soil selected for its uniformity. Examples of the variations as affecting the yield of hay are given below:

	Lbs. per Acre
Whippoorwill, seed from Arkansas, yielded .....	1,300
Whippoorwill, seed from Louisiana, yielded .....	2,500
Clay, seed from Virginia, yielded .....	3,800
Clay, seed from Arkansas, yielded .....	8,700
Wonderful, seed from North Carolina, yielded .....	3,300
Wonderful, seed from Florida, yielded .....	7,000
Black, seed from Arkansas, yielded .....	2,400
Black, seed from Georgia, yielded .....	5,700
Red Ripper, seed from Alabama, yielded .....	2,300
Red Ripper, seed from Tennessee, yielded .....	4,600
New Era, seed from Maryland, yielded .....	700
New Era, seed from Arkansas, yielded .....	1,900
Black Eye, seed from Oklahoma, yielded .....	700
Black Eye, seed from North Carolina, yielded .....	4,000

### Same Variety Greatly Affected by Change in Climate and Soil.

These great variations in the quantities of hay produced on different plots of the same variety could not have been affected by local conditions, since the several lots of each variety were not only grown upon

soil of uniform fertility, but were given the same treatment in every respect from preparation of soil and planting through harvesting and cur-

ing. The plot of Clay peas that produced 3,800 pounds of hay from Virginia grown seed was alongside the plot that produced 8,700 pounds of hay from Arkansas grown seed. Black Eye from Indiana was adjacent to Black Eye from North Carolina—one producing 800 pounds and the other 4,000 pounds of hay per acre. New Era from Maryland produced 700 pounds while home grown seed gave 1,900 of hay per acre. On the other hand the Maryland seed yielded 22 bushels of peas against 19 bushels from the Arkansas seed.

## Make Your Loafing Acres Yield a Profit.

How many thousands of loafing acres I have seen in my recent travels in the South it would be hard to compute. Wide fields that should be in one body, showed a little patch of corn here, a little patch of cotton there, a hollow full of bushes and patches of broomsedge pushing in between the corn and cotton. Patch-work farming, short rows taking up time, one-horse implements that each take a man, all show in too many places at what great cost the little crops are produced.

There is no profit in that sort of farming, no matter what the price of the products may be. That is the sort of farming that puts weak cotton on the market in the fall to depress the prices, and most of it is done by croppers who would be better off working for wages, and the land better off growing up in pine trees, if the owner cannot afford to work and improve all he owns.

It does not pay to grow cotton at a cost of eight cents a pound, when by good farming, and the use of improved implements it can be grown at half the cost. But this is never done in a field that is made up of a little patch of cotton, a little patch of broomsedge, a little patch of corn that will not make the feed for the mule that works it, and many big patches of bushes and gullies. That sort of farming does not pay.

Then in some places I saw large fields loafing, in weeds and old corn stalks, "resting," the owners say, while the land is doing its very utmost to grow a crop of weeds, though it would rest to much better effect if growing a big crop of peas to feed stock and make manure to enable it to grow crops.

There are enough acres loafing in the South to feed all the stock needed to make farmers independent of the fertilizer mixer. If all the loafing acres were in a systematic rotation, growing forage, the cotton crop now made could be made on less than half the number of acres, and the South could produce all the meat its cities need, and all the grain and roughage to feed the cattle. How many acres have you loafing in bushes and broomsedge, with little patches between the gullies?

## Thoughts by the Roadside.

By Maurice O. Eldridge in "Good Roads for Farmers."

Water is the great road destroyer.

An essential feature of a good road is good drainage.

The first demand of good drainage is to attend to the shape of road surface. This must be "crowned," or rounded up toward the center.

In addition to being well covered and drained, the road surface should be kept as smooth as possible; that is, free from ruts, wheel tracks, holes, or hollows.

There are thousands of miles of public roads in the United States which are practically impassable account of bad drainage.

The wearing surface of a road must be in effect a roof; that is, the during some portion of the year on section in the middle should be made as impervious to water as possible, so that it will flow freely and quickly into the gutters or ditches alongside.

Drainage alone will often change a bad road into a good one, while on the other hand the best road may be destroyed by the absence of good drains.

The usual way of mending roads which run over loose sandy soils is to cover the surface with tough clay or mix the clay and sand together. This is quite an expensive treatment if the clay has to be transported a great distance, but the expense may be reduced by improving only 8 or 10 feet or half of the roadway.

The only exceptions to the instructions given on road drainage are found in the attempt to improve a sand road. The more one improves the drainage of a sand road the more deplorable becomes its condition. Nothing will ruin one quicker than to dig a ditch on each side and drain all the water away. The best way to make such a road firm is to keep it constantly damp. Very bushy or shady trees alongside such roads prevent the evaporation of water.