

GEORGIA INSTITUTE OF GENETICS

CARTERSVILLE, GEORGIA

THE COTTON STORY IN BARTOW COUNTY

We hear on every side that by 1975 (or some other not too far off year) there will be many millions more to feed and clothe in our great land -- to say nothing about those in other places. The food they eat, and, in many instances, the textiles for clothing to accomodate this great increase in population will necessarily have to come not from new lands to be brought into cultivation but from increases in yields per acre of our crops, brought about by improvement in soil conservation and by other advanced techniques in agricultural production. Not the least of these is the increase that can be obtained by intelligent and persistent plant breeding and a subsequent wide-spread use of the improved plant creations.

We believe we have a story here in Bartow County, Georgia that can be of untold value to the millions yet unborn - if the cause of it be properly encouraged and capitalized. This story concerns the change that has taken place in the production of cotton in one Northwest Georgia County as compared with the six surrounding counties.

In 1932, the picture of cotton production in Bartow County, Georgia was almost identical with that in the six adjoining counties of Cherokee, Cobb, Gordon, Floyd, Polk and Paulding.

In 1932 Bartow County planted 44,600 acres in cotton, on which was produced 16,900 bales - a yield of 181 pounds of lint cotton per acre.

In 1932 the six other counties planted 163,000 acres in cotton, on which was produced 65,000 bales - an average yield of 186 pounds of lint cotton per acre.

As had been true for many previous years, Bartow County made approximately one-fourth as much cotton as the total of the six surrounding counties.

The very next year (1933) M.W.H. Collins, a Cotton Plant Breeder, was employed by the Agricultural Extension Service as County Agent for Bartow County. Along with other duties of this position, Collins began a system of cotton seed breeding in Bartow County which over the period of the next nine years made a remarkable impact on cotton yields in Bartow County - so much so that in 1942, while the cotton picture had changed considerably in all Northwest Georgia there had been - even by then - a singularly much more striking change in Bartow County than had occurred in the six adjoining counties. This was reflected in the following figures:

In 1942 Bartow County produced 16,300 bales of cotton on 26,000 acres - an average yield of 338 pounds per acre. (This is almost a 100% increase over the yield in 1932)

In 1942 the six adjoining counties produced 52,990 bales on 93,000 acres - an average yield of 275 pounds per acre. (This increase is only slightly more than 50% over the yield in 1932)

Both Bartow County and the six adjoining counties had reduced the acreage devoted to cotton half in two, but Bartow only had actually increased the total number of bales produced and now made more than one-third as much cotton as the other six counties combined!

By reason of this startling change in the cotton picture over this nine year period (and at Collins' suggestion) a group of far-seeing Georgians established in 1943 a non-profit corporation -The Georgia Institute of Genetics, for the purpose of enlarging the facilities for seed improvement work with cotton and/or with other crops.

During the next ten years that enterprise grew continuously (although somewhat slowly) from year to year. Plant breeding, taken in any one year, is not a spectacular thing - although over a period of years you sometimes get a spectacular result, as happened in Bartow County between 1942 and 1952, as is now shown by the cotton production figures for 1952.

By 1952 a tremendous change had occurred in the cotton picture as between Bartow County and the six adjoining counties:

Bartow County produced 20,500 bales of cotton on 24,000 acres for a yield of 429 pounds per acre, which is an increase in the yield of cotton per acre during the last ten year period of almost another 100 pounds of lint cotton per acre.

The six adjoining counties produced 27,900 bales of cotton on 54,000 acres (note decrease in acreage planted) with a yield of 285 pounds per acre. During this ten year period they had increased their yield only 10 pounds of lint cotton per acre!

Bartow County now made three-fourths as much cotton as all the others put together!

This change in cotton production in a homogeneous section as to soils, climate and people cannot be just a "happen so". Those who are interested in the work of the Georgia Institute of Genetics believe this change must be largely credited to the work and example of the Institute. As a matter of fact, how else can you attribute this change? The same sort of people, on the same sort of soil, with the same sort of weather conditions, have made cotton growing a profitable enterprise in the one County, while at the same time their neighbors just across a political boundary line have not done so.

In addition to the change in the yield per acre and the total production therefrom, there has also occurred another very significant change - and that is in the quality of the lint cotton produced:

In 1932 a great deal of the cotton grown in this area was 7/8 inch staple or less.

In 1942 a great majority of it was inch cotton or better.

By 1952 the cotton was almost entirely an inch to 1-1/16 inch staple.

What is the purpose of relating the above story? It is just this:

It is believed by those who help to found and who have encouraged the growth of the Georgia Institute of Genetics that we have in this Institute a Pilot Plant which should be greatly enlarged, in order that the value of the undertaking can be of more wide-spread value. Branches of the Georgia Institute of Genetics or other similar independent units should be established. Those who are interested in this present undertaking have no selfish interest to serve in this instance but they do believe we have here at least a part of the answer to that problem which stares civilization in the face more emphatically every day -- How are we to feed and clothe ourselves in the future?

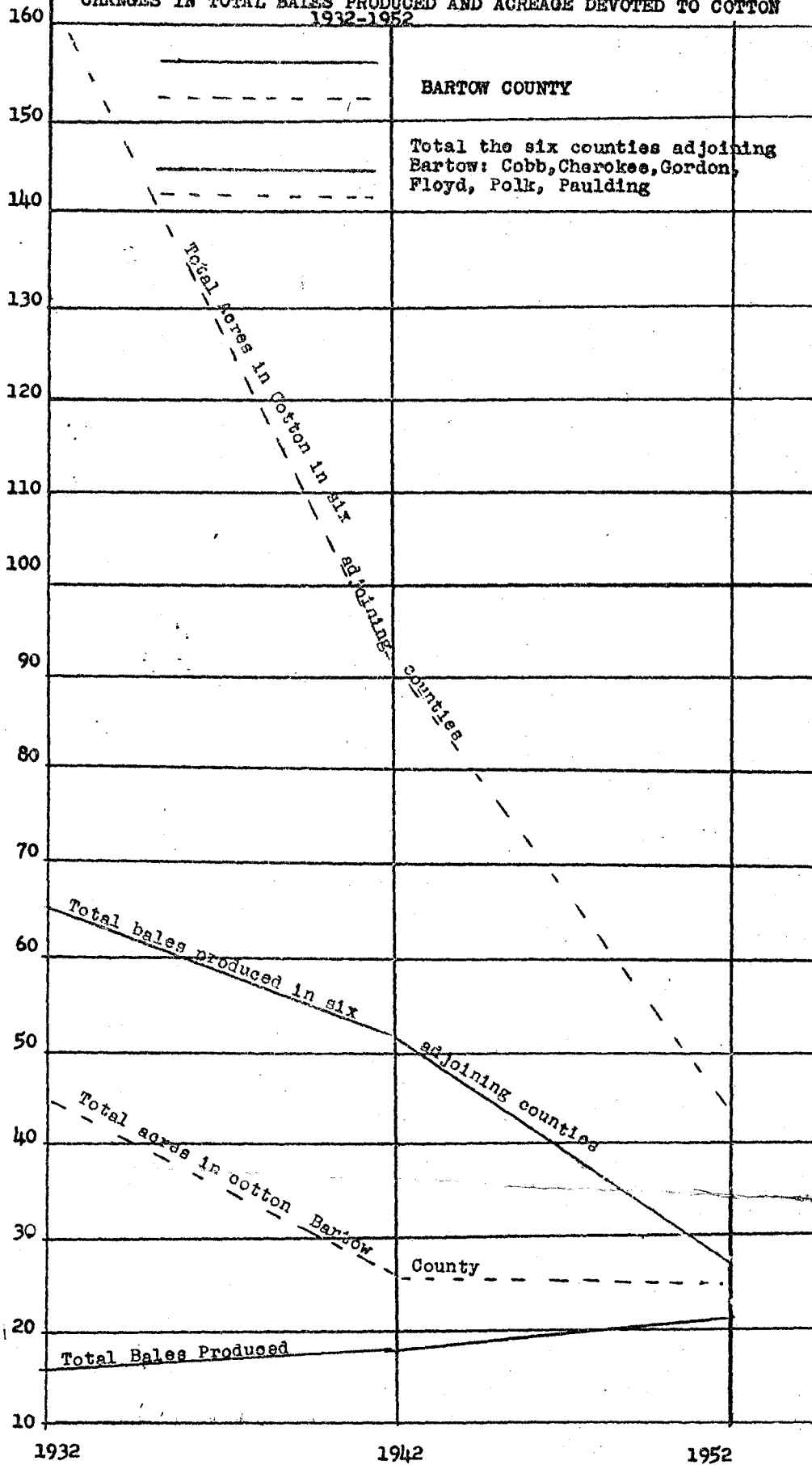
MINIMUM IMMEDIATE NEEDS OF THE G.I.G.

(for cotton program alone)

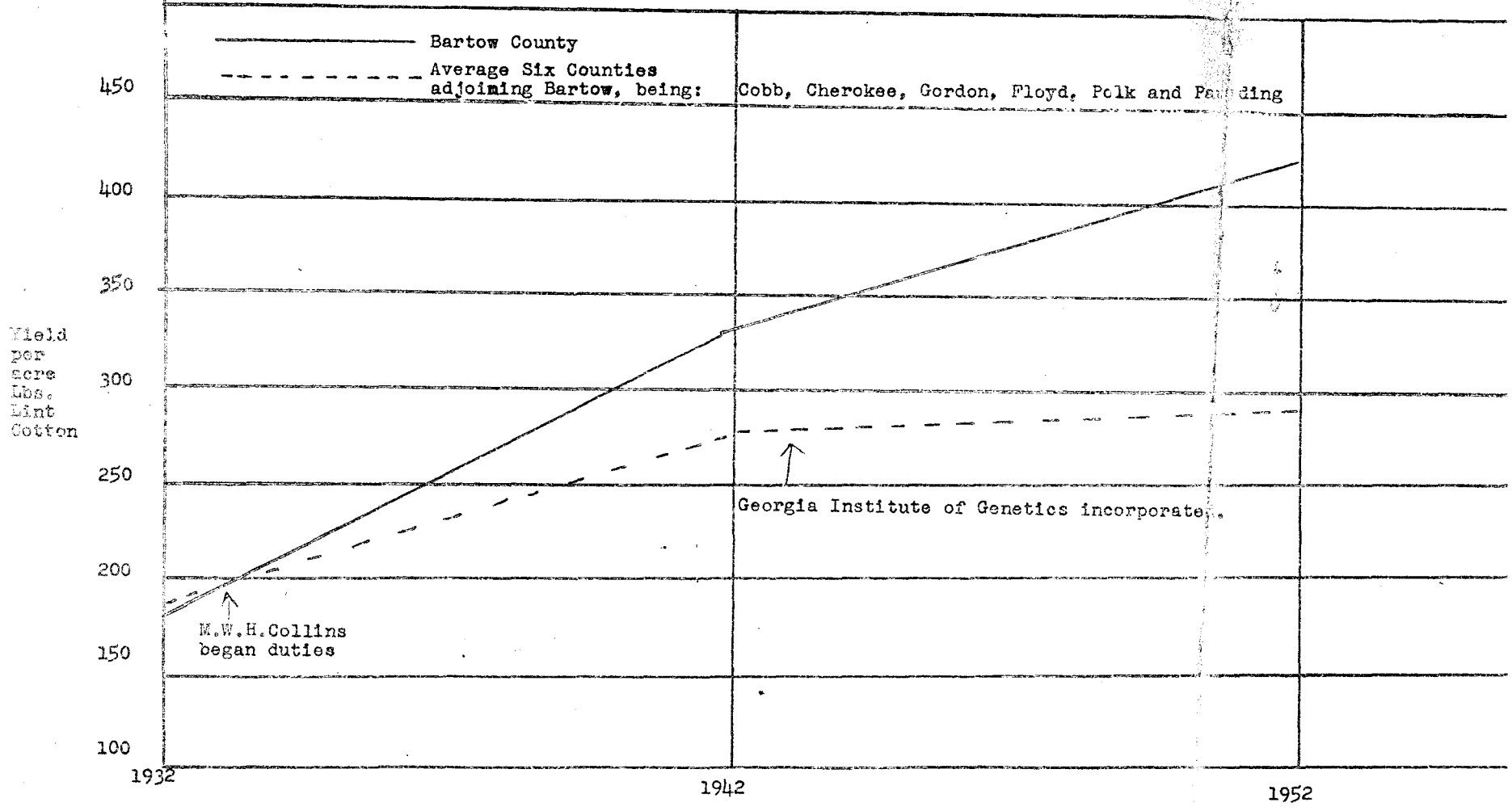
1. An adequate warehouse - laboratory building	\$ 50,000.00
2. Additional cotton processing machinery, gins, bale press, etc.	15,000.00
3. Additional land	25,000.00
4. Working Capital	20,000.00

GEORGIA INSTITUTE OF GENETICS - CARTERSVILLE, GA.  
 CHANGES IN TOTAL BALES PRODUCED AND ACREAGE DEVOTED TO COTTON  
 1932-1952

Thousands  
 Acres  
 or  
 Bales



GEORGIA INSTITUTE OF GENETICS  
 CHANGE IN YIELD OF LINT COTTON PER ACRE - 1942 - 1952



Yield per acre lbs. Lint Cotton

450  
400  
350  
300  
250  
200  
150  
100

1932 1942 1952

— Bartow County  
 - - - Average Six Counties adjoining Bartow, being: Cobb, Cherokee, Gordon, Floyd, Polk and Paulding

M.W.H. Collins began duties

Georgia Institute of Genetics incorporated