

## FREE CORN SEED Can Be EXPENSIVE

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CORN PRODUCTION in 1970 was disastrous because of southern corn leaf blight (race T) on corn hybrids containing Texas male sterile cytoplasm. With the seed shortage of adapted normal cytoplasm hybrids many farmers in Alabama and other states turned to their cribs for seed to plant the 1971 crop. Although faced with a probable yield reduction from planting this second generation or F<sub>2</sub> seed many farmers felt this was a better choice than T cytoplasm hybrids or blends.

In most cases 1971 corn yields were good, and many farmers who planted F<sub>2</sub> seed made what they considered to be acceptable yields. However, without planting the comparable first generation or F<sub>1</sub> hybrid there was no way to know what yields could have been realized in 1971.

To help answer this question, F<sub>1</sub> and F<sub>2</sub> seed of Funk's G-795W-1 were entered in the corn variety testing program by the Auburn University Agricultural

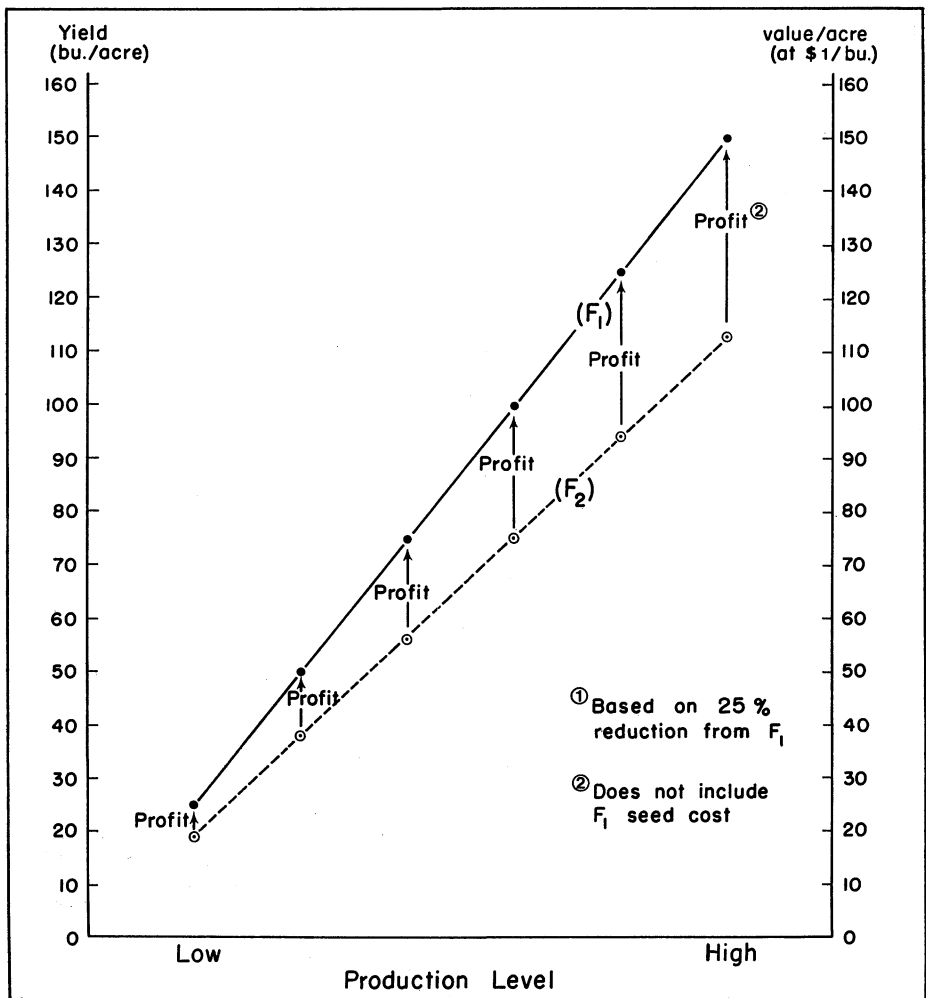
Experiment Station in 1971. Results of these tests are shown in the table. The average yield reduction from using the F<sub>2</sub> was 25 per cent and there was also a slight increase in lodging. This reduction may vary because of such factors as location, year and F<sub>1</sub> from which the F<sub>2</sub> was obtained.

The figure shows the calculated yield and value of F<sub>1</sub> versus F<sub>2</sub> corn based on the average per cent reduction shown in the table. This reduction percentage may vary slightly depending on the yield level; however, it is assumed to be constant at all yield levels in this figure. The value used for feed corn is \$1.00 per bushel.

The yield and value per acre will vary depending on production level of the individual producer. At a high production level the yield difference is greater than at a low production level. For example, as shown in the figure at a high production level when the F<sub>2</sub> yield is 75 bushels per acre the F<sub>1</sub> yield is 100 bushels per acre, a 25 bushel or \$25 per acre increase. At a low production level when the F<sub>2</sub> yield is 38 bushels per acre the

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Calculated yield and value of  $F_1$  versus  $F_2$  (based on 25% reduction from  $F_1$ ) corn.

$F_1$  yield is 50 bushels per acre, a 12 bushel or \$12 per acre increase.

Although the cost of  $F_1$  hybrid seed may appear to be high it should be remembered that one bushel of corn will plant several acres. The number of acres planted per bushel will vary with the number of seed per bushel and the number of seed planted per acre. One bushel of medium flat seed will plant about 5 acres at the recommended rate. If the  $F_1$  seed price is \$25 per bushel, the cost per acre is \$5. Any  $F_1$  yield increase of

5 bushels per acre or greater will pay for this seed cost. The figure also shows that at any  $F_2$  yield greater than 19 bushels per acre a profit would be realized by planting the  $F_1$ . These figures assume that the  $F_2$  seed are free. Any value given for  $F_2$  seed would make planting the  $F_1$  even more favorable.

$F_1$  hybrid seed will be profitable at any reasonable seed cost or yield level.  $F_1$  seed of adapted normal cytoplasm hybrids will be available in 1972. Don't plant free seed; it will cost you money.

YIELD AND LODGING OF FUNK'S G-795W-1 (F<sub>1</sub>) AND FUNK'S G-795W-1 (F<sub>2</sub>)  
IN ALABAMA—1971

Location	Yield per acre <sup>1</sup>		Yield reduction	Lodging	
	F <sub>1</sub>	F <sub>2</sub>	F <sub>2</sub>	F <sub>1</sub>	F <sub>2</sub>
	<i>Bu.</i>	<i>Bu.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Belle Mina.....	120	80	33	3	7
Prattville.....	130	97	25	5	7
Camp Hill.....	82	63	23	20	27
Tallassee.....	102	82	20	29	60
Camden (irrigated).....	110	75	32	12	22
(Not irrigated).....	87	55	37	7	13
Auburn.....	92	86	7	21	17
Brewton.....	126	92	27	44	37
Monroeville.....	65	48	26	46	35
Headland.....	128	88	31	14	28
Fairhope.....	136	112	18	6	16
Average.....	107	80	25	19	24

<sup>1</sup> Yields adjusted to 15.5% moisture and 56 lb. per bushel.

