Response of DEKALB® Corn Products To Population – SLC – MS

2017 Learning Center Demo Report
Monsanto Learning Center at Scott, MS

BACKGROUND

- As new DEKALB® brand corn products enter the market, growers need guidance as to the appropriate planting populations for each product.
- The primary questions growers asked were:
  - If I plant more seed, will the yield potential increase?
  - If I plant more seed, will the DEKALB® brands lodging potential increase?
  - What effect does population have on ear size as measured in weight per ear?
- The objective of this demonstration trial was to evaluate new DEKALB® brand corn products for response to population at Scott Learning Center in Scott, MS.

BACKGROUND

- 10 DEKALB® corn products were planted at the Monsanto Learning Center in Scott, MS on March 21, 2017 with the following conditions:
  - Soil Type: Commerce silt loam
  - Previous Crop: Soybeans
  - Tillage: Conventional
  - All DEKALB® corn products were harvested on August 15, 2017
  - All agronomic practices were per local standards

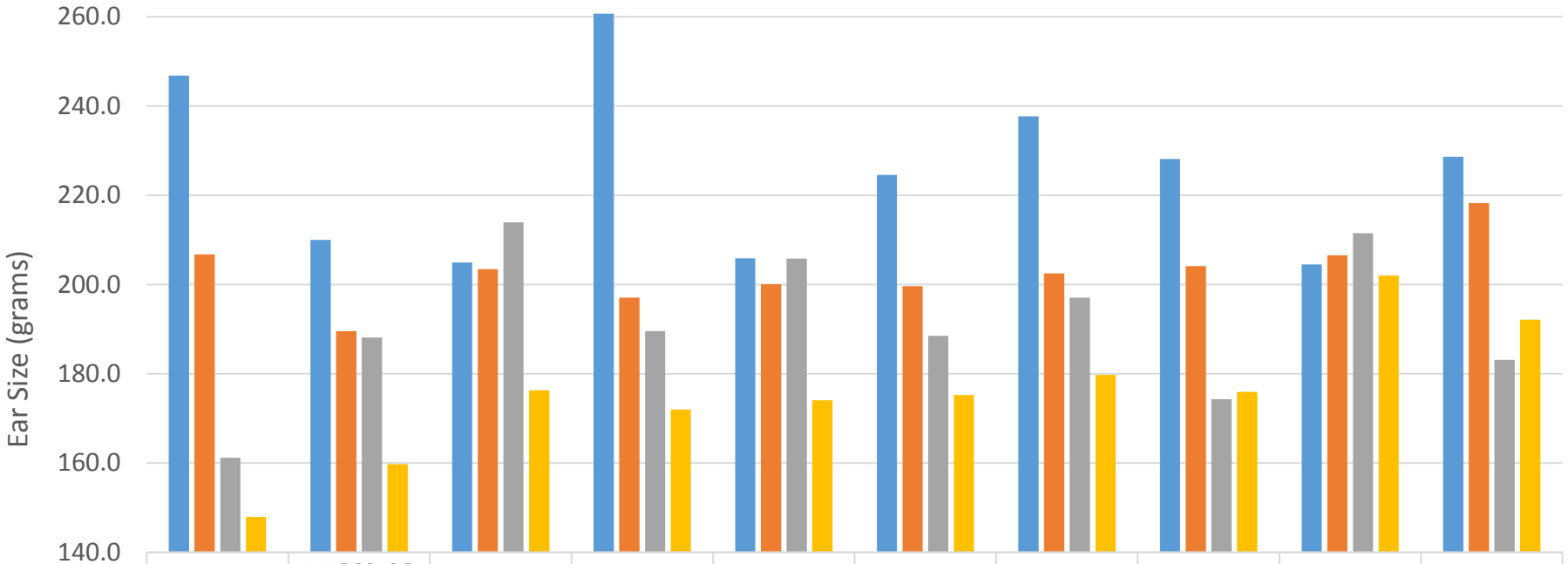
STUDY GUIDELINES

- Plots were 4 rows X 450 feet (.15 acre).
- DEKALB® corn products planted:
  - DKC62-08 Brand
  - DKC62-20RIB Brand Blend
  - DKC64-35 Brand
  - DKC66-75 Brand
  - DKC66-94 Brand
  - DKC66-97 Brand
  - DKC67-44 Brand
  - DKC67-72 Brand
  - DKC68-26 Brand
  - DKC70-27 Brand
- Each product was planted at populations of 28,000, 32,000, 36,000 and 40,000 seeds/acre.
- Nitrogen (N) was applied at 240 lbs/acre.
- Emergence was approximately 97-98%.
- All other agronomic practices were per local standards.

STUDY GUIDELINES

- Data Collected:
  - 8 row feet of each plot as hand shelled for ear weight.
  - 100 kernel seed weights were recorded from each corn product x population combination at shelling.
  - Remaining plots were machine harvested for yield.

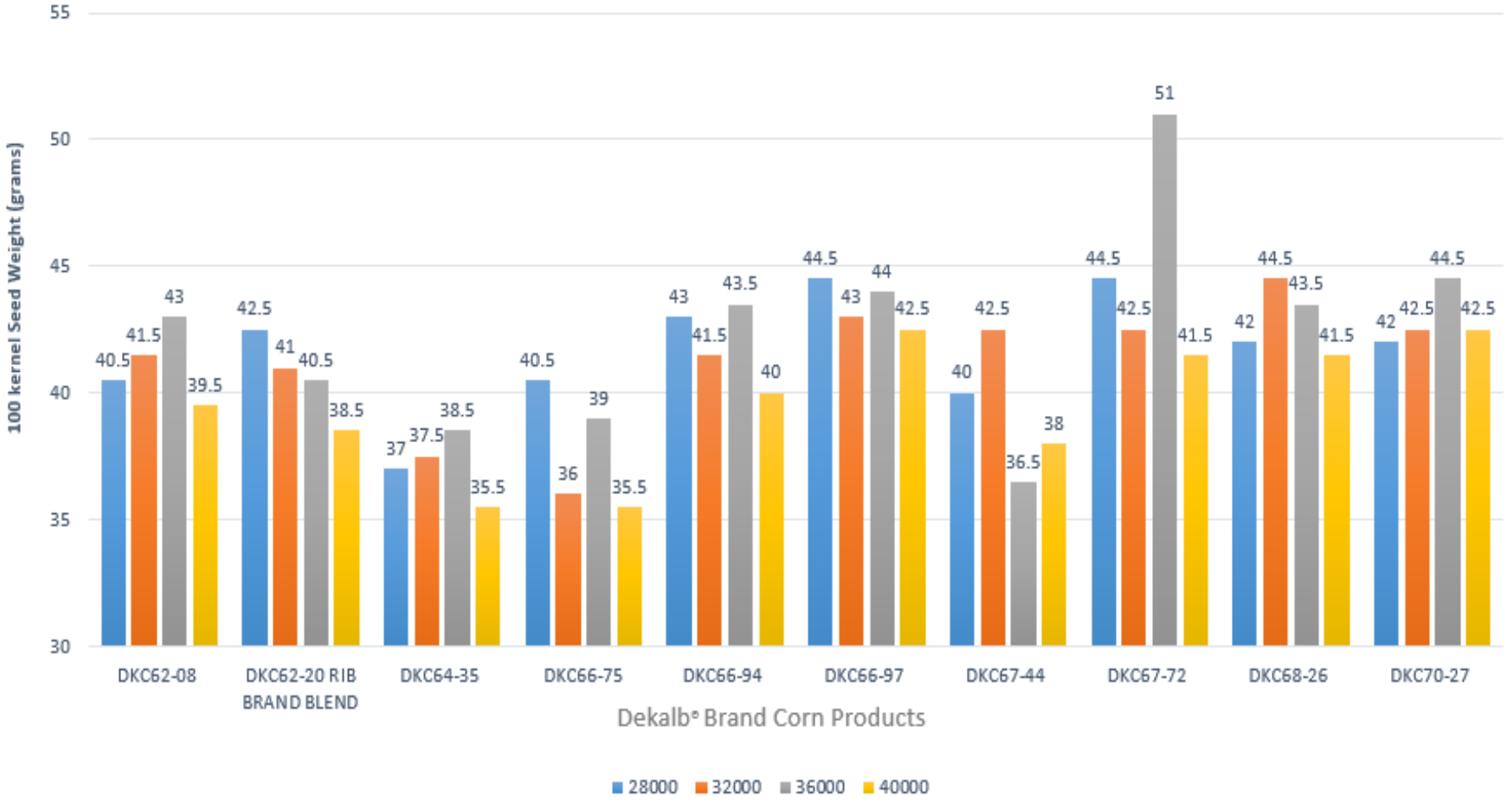
STUDY GUIDELINES



	DKC62-08 Brand	DKC62-20 RIB Brand Blend	DKC64-35 Brand	DKC66-75 Brand	DKC66-94 Brand	DKC66-97 Brand	DKC67-44 Brand	DKC67-72 Brand	DKC68-26 Brand	DKC70-27 Brand
28000	246.8	210.0	204.9	260.7	205.8	224.5	237.7	228.1	204.5	228.6
32000	206.7	189.6	203.4	197.1	200.1	199.6	202.4	204.1	206.5	218.2
36000	161.1	188.1	213.9	189.6	205.8	188.5	197.1	174.3	211.5	183.1
40000	147.9	159.7	176.3	172.0	174.0	175.3	179.7	175.9	202.0	192.1

Response of DEKALB® Brand Corn Products ear size to Populations

RESULTS & DISCUSSION



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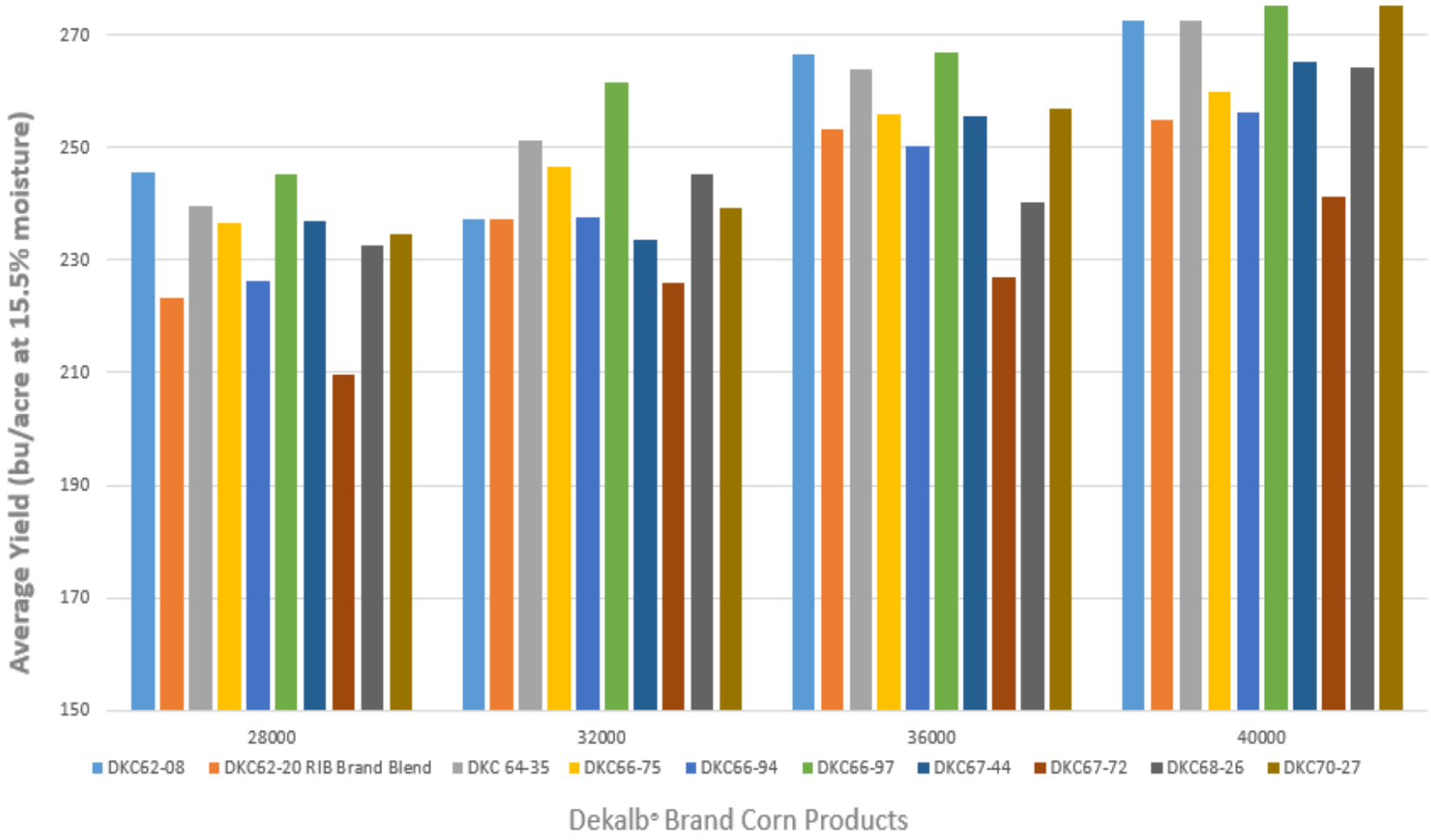
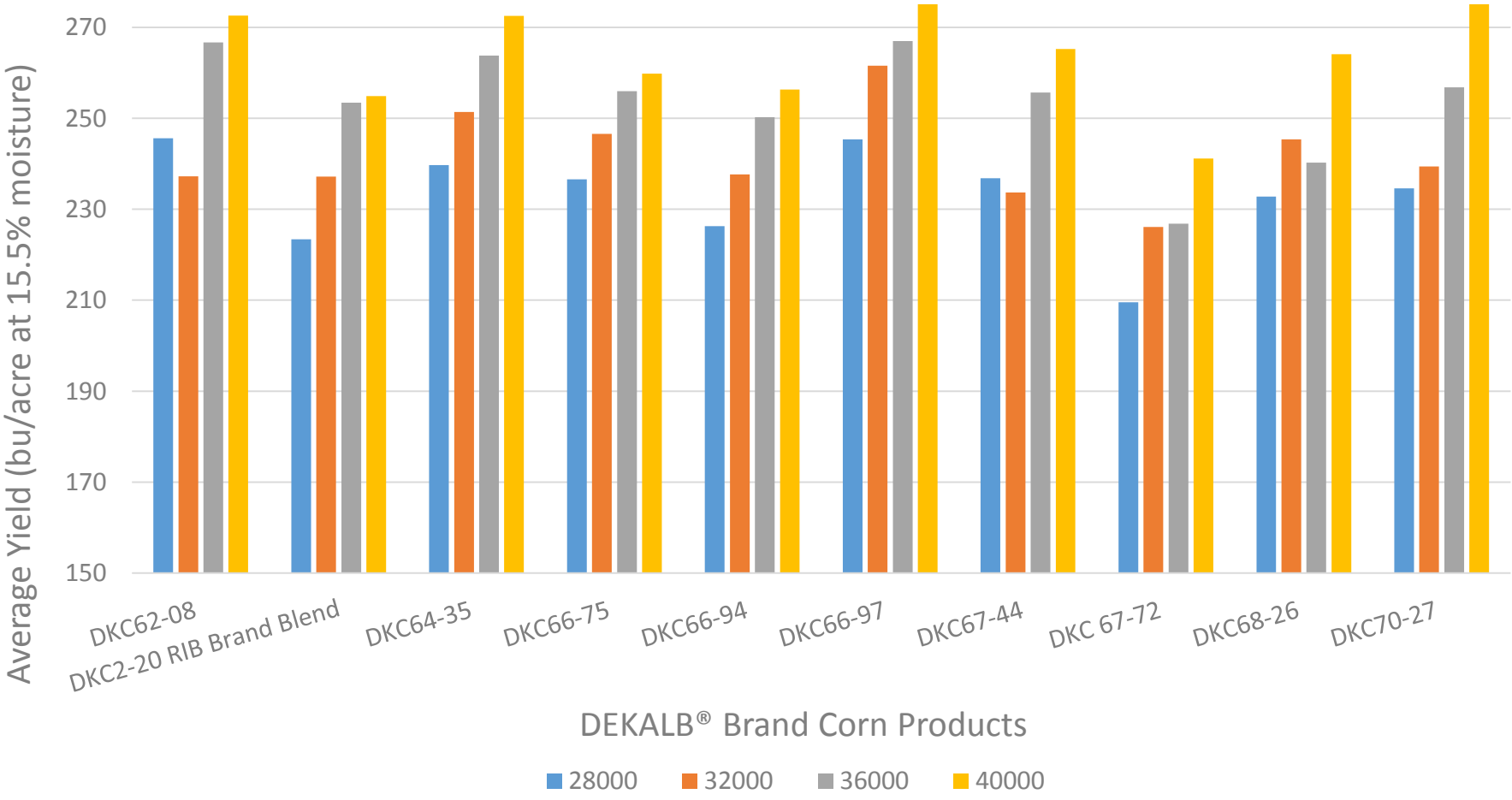
RESULTS & DISCUSSION



Average Yield of DEKALB® Brand Corn Products to Population

Response of DEKALB® Corn Products To Population

RESULTS & DISCUSSION



Response of DEKALB® Brand Corn Products to Population

RESULTS & DISCUSSION

- Most DEKALB® products responded favorably to higher plant populations with little or no lodging occurring.
- Yield potential was optimized for many of the DEKALB® products at the 36,000 kernel/acre range.
- Yields of some corn products continued to increase as populations increased.
- As indicated by ear size and yield data, DEKALB® brands vary with levels of flex in the ear.

RESULTS & DISCUSSION

Average Ear Size by Population for Comparison

TAKE AWAYS

- New DEKALB® brand products should be evaluated for yield response to different populations and what they can mean on your farm. New DEKALB brand products should be evaluated for yield response to different planting populations.
- In general, all DEKALB® brand products responded positively to higher planting populations.
- While some environments have increased lodging potential, many of the new DEKALB® brand products present the opportunity for increased yield potential with higher planting populations.

TAKE AWAYS

- Growers should carefully consider all factors when choosing DEKALB® brand corn products and deciding on the appropriate plant population.
- Average yield, ear weights, and 100 kernel weights point to differing amounts and mechanisms of flex across the range of tested brands.

LEGAL STATEMENTS

The information discussed in this report is from a single site, non-replicated demonstration. This informational piece is designed to report the results of this demonstration and is not intended to infer any confirmed trends. Please use this information accordingly.

Individual results may vary, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible.

THANK YOU

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