



How To Use No-Till To Combat Weather Extremes

Marion Calmer

Farmer/Owner - 38 years

Calmer Ag Research - 28 years

Calmer Corn Heads - 18 years



Wisconsin

Michigan

Iowa

Illinois

★ STINE
SEED
Adel

★ CALMER
FARMS

Indiana

Silt Loam

Missouri

Kentucky



Thursday, January 17, 13

Illinois Governor Rod Blagojevich



1st Term

Illinois Governor Rod Blagojevich



1st Term



2nd Term

Marion and President Obama



Thursday, January 17, 13

*We can't Improve On
Things We Don't Measure*



Marion Calmer

28 years

**NO-TILL
FARMER**

MAY-JUNE 1992/\$2.00

SUCCESSFUL FARMING

FOR FAMILIES THAT MAKE FARMING THEIR BUSINESS™

BUSINESS

Side-by-side:
**WATER TEST
KITS ... 16**

PRODUCTION

**Precision
hoeing ... 36**

Cover story:
**Farmer-run
research ... 38**

FAMILY

**'Play or pay'
health care ... 51**

ON THE COVER: Alpha, Illinois, research-minded farmers are: Marion Calmer (green shirt), Gary Kness (front), Jeff Newman (red shirt). In background: Virgil Calmer, Kevin Colburn, Joe Kness. See page 38. Cover photo: Russ Mann



Marion Calmer

28 years

Cover story: Farmer-run research ... 38

MAY-JUNE 1992/\$2.00

SUCCESSFUL FARMING

FOR FAMILIES THAT MAKE FARMING THEIR BUSINESS™

BUSINESS

Side-by-side:
WATER TEST
KITS ... 16

PRODUCTION

Precision
hoeing ... 36

Cover story:
Farmer-run
research ... 38

FAMILY

'Play or pay'
health care ... 51

ON THE COVER: Alpha, Illinois, research-minded farmers are: Marion Calmer (green shirt), Gary Kness (front), Jeff Newman (red shirt). In background: Virgil Calmer, Kevin Coburn, Joe Kness. See page 38. Cover photo: Russ Mann





Combating Weather Extremes

Combating Weather Extremes

- No-Till

Combating Weather Extremes

- No-Till
- Dry Fertilizer

Combating Weather Extremes

- No-Till
- Dry Fertilizer
- Narrow Rows

Combating Weather Extremes

- No-Till
- Dry Fertilizer
- Narrow Rows
- Seeding Rates

1975 - 1985



1986 - 1989



1990 - 1994





1995 - Present

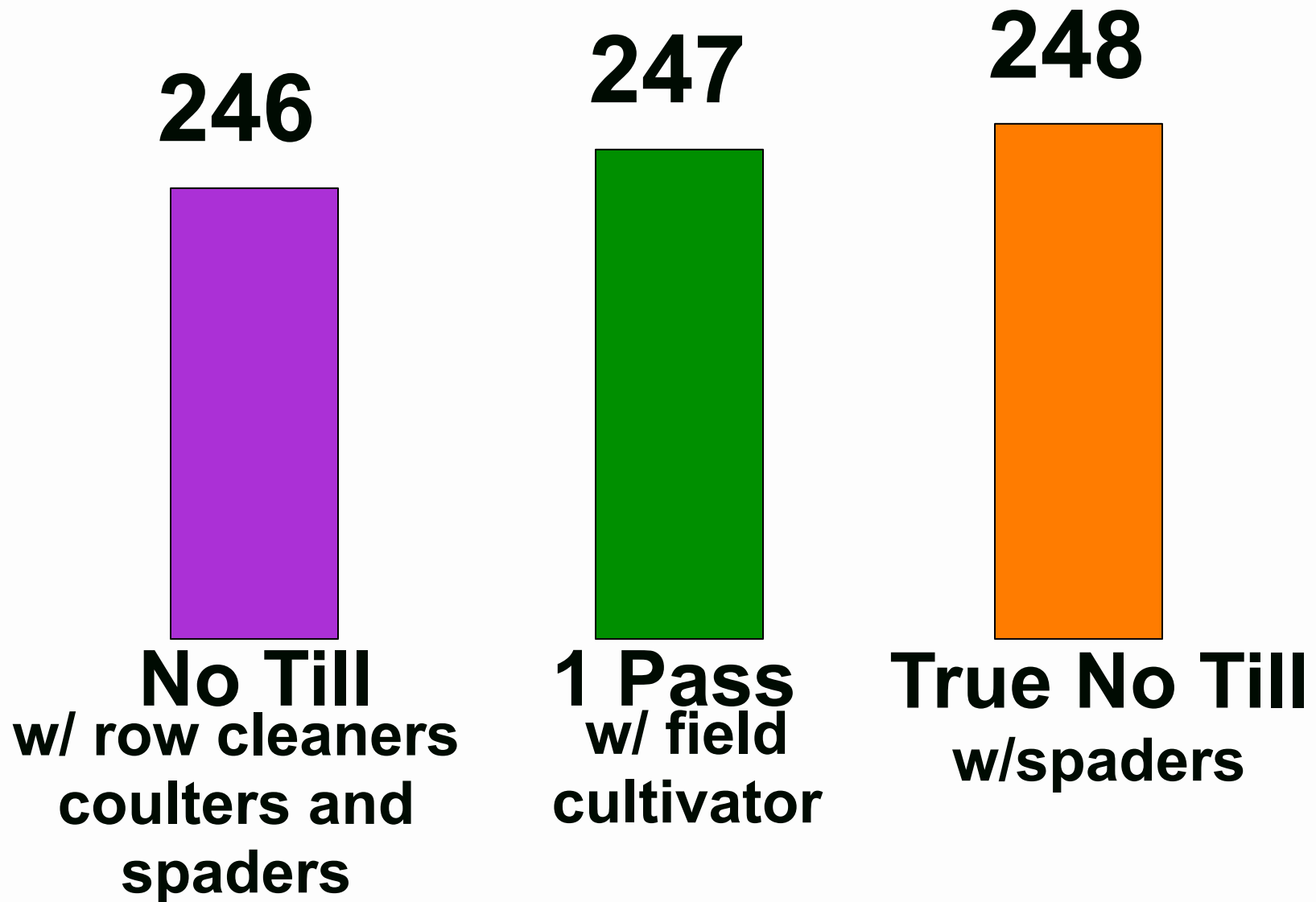


Thursday, January 17, 13



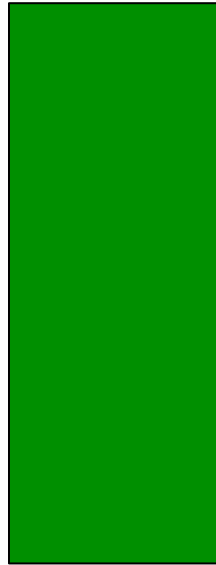
Thursday, January 17, 13

2007 Corn Tillage Study



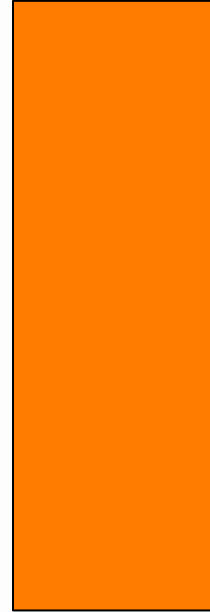
2012 No-Till Coulters

190



No Till
Coulters
Down

191



No Till
Coulters Up



This year Darryl came out to help me No-Till...



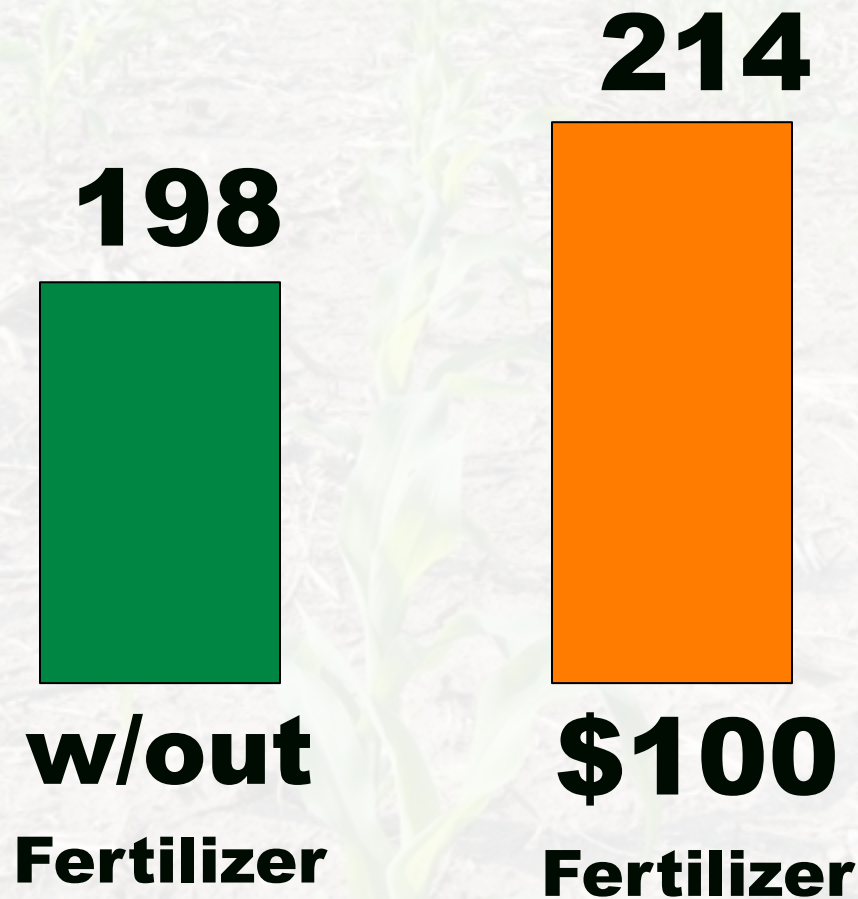


Thursday, January 17, 13

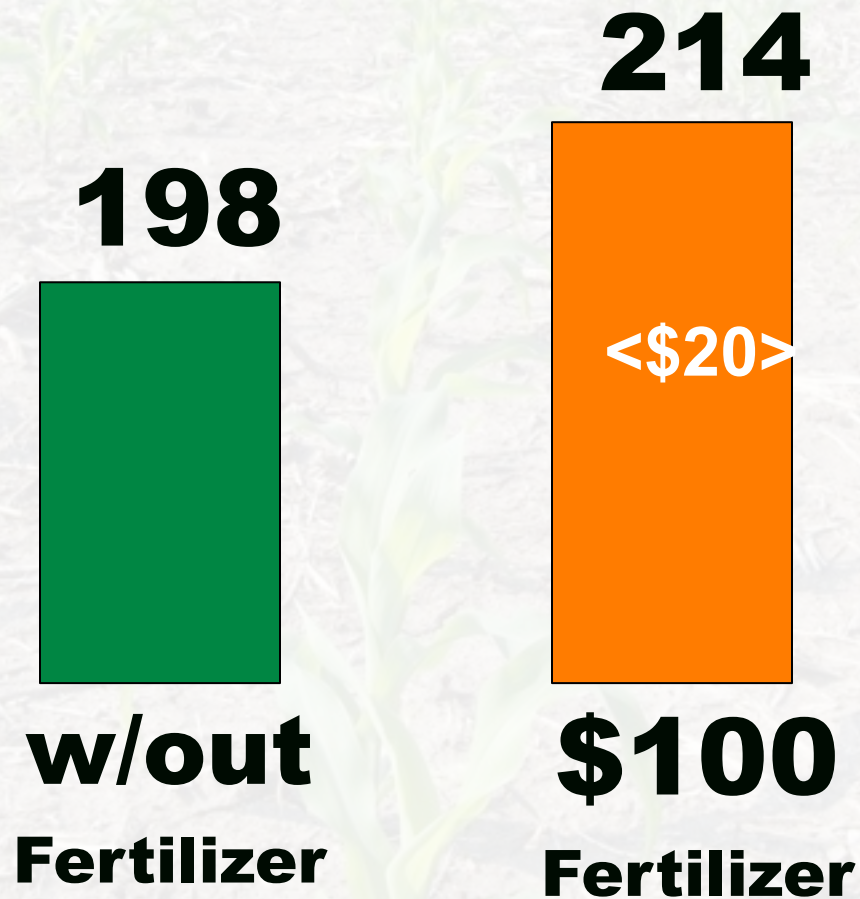


Thursday, January 17, 13

2011 Fertility Study

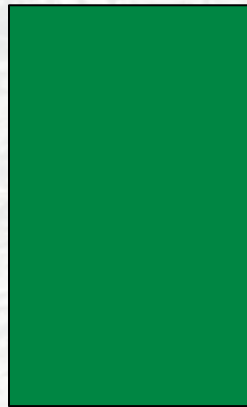


2011 Fertility Study



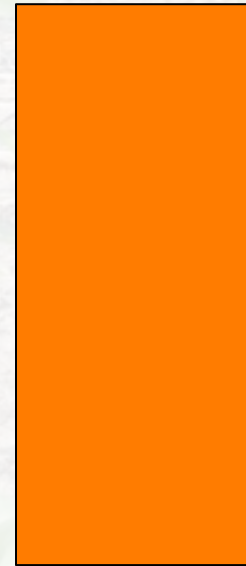
2012 Fertility Study

59 bu



**w/out
Fertilizer**

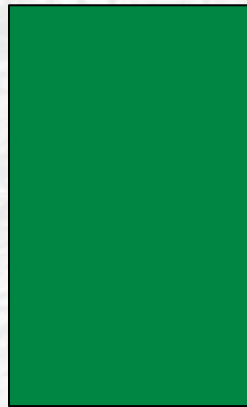
63 bu



**\$50
Fertilizer**

2012 Fertility Study

59 bu



**w/out
Fertilizer**

63 bu



**\$50
Fertilizer**



Thursday, January 17, 13



Thursday, January 17, 13



Thursday, January 17, 13



Thursday, January 17, 13



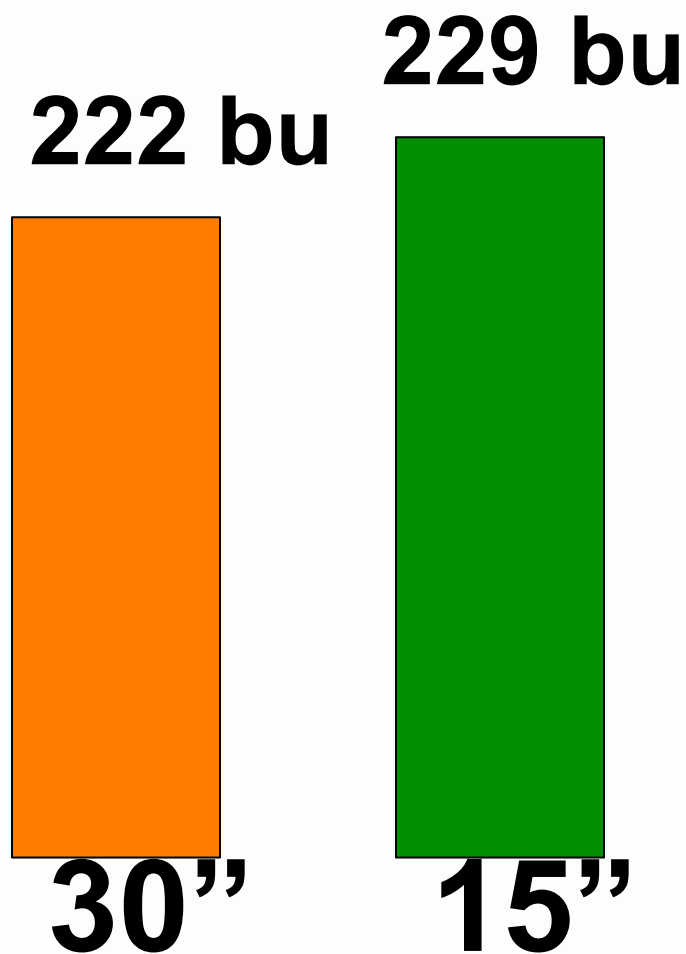
Thursday, January 17, 13

30" Rows - 15" Rows



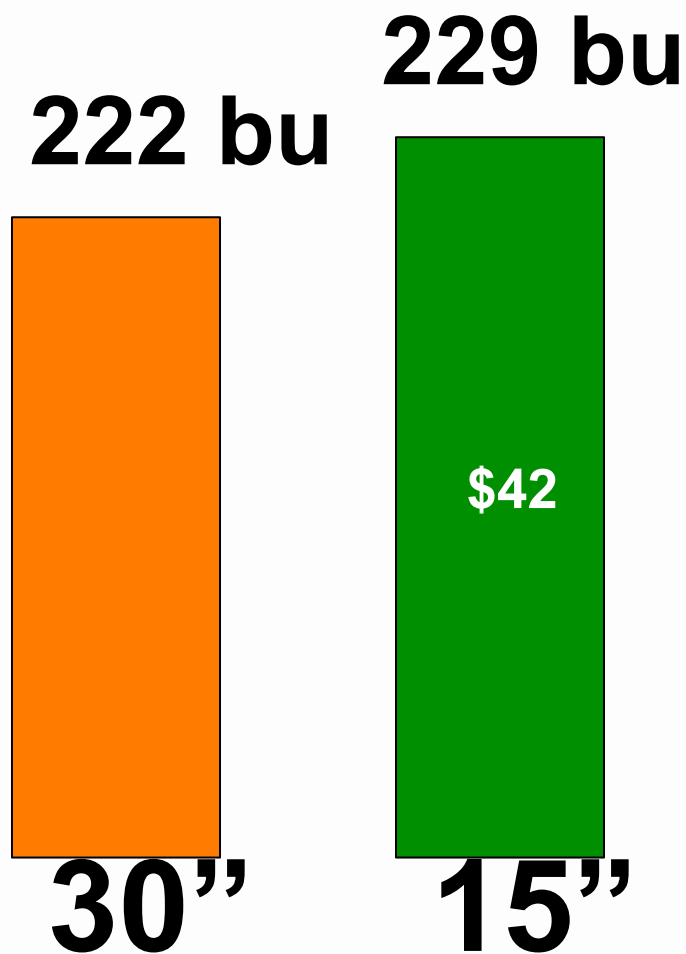
Corn Row Spacing Study

07 - 2011



Corn Row Spacing Study

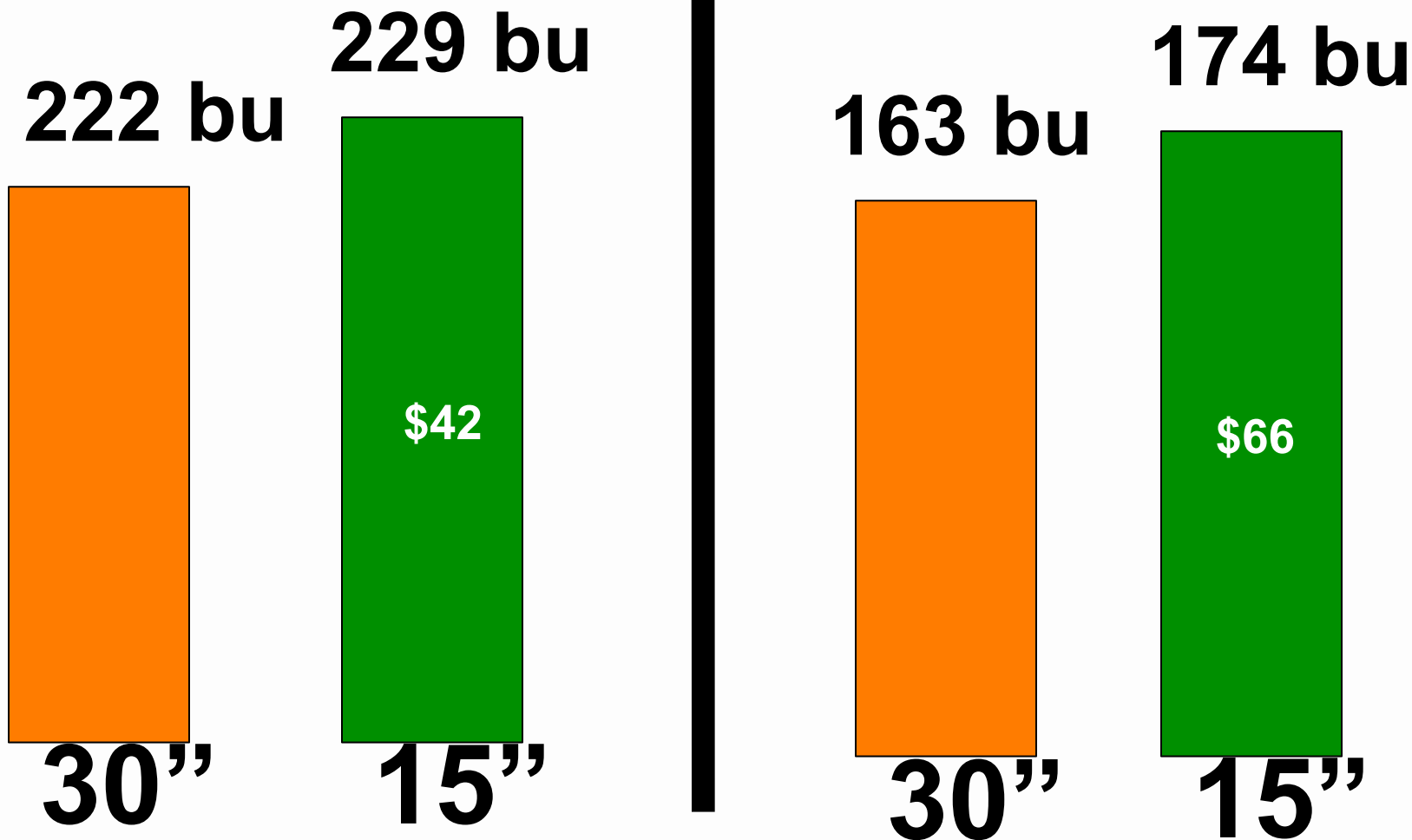
07 - 2011



Corn Row Spacing Study

07 - 2011

2012





30 inch



15 inch

1974
40''



Thursday, January 17, 13

1974
40"



2009
15"





Thursday, January 17, 13

Yardstick

The No-Till

Project

"We Can All Learn From What You Learn"

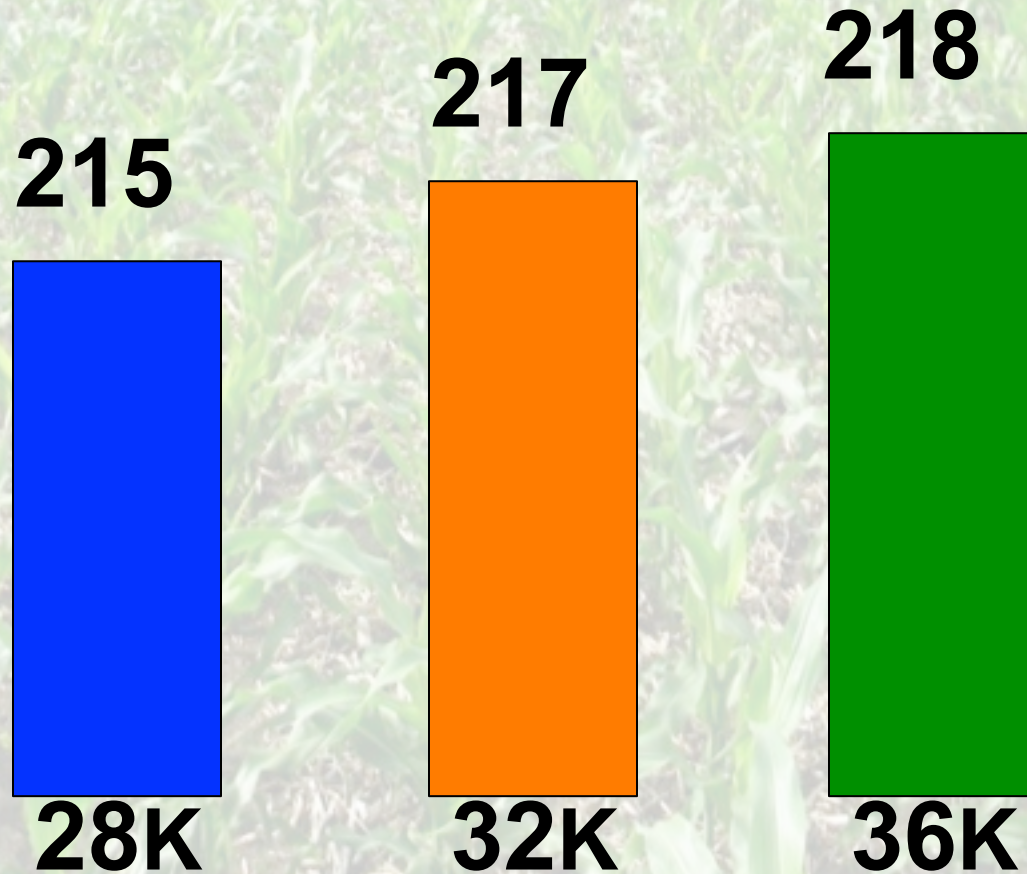


**NO-TILL
FARMER**

**NO-TILL
FARMER**



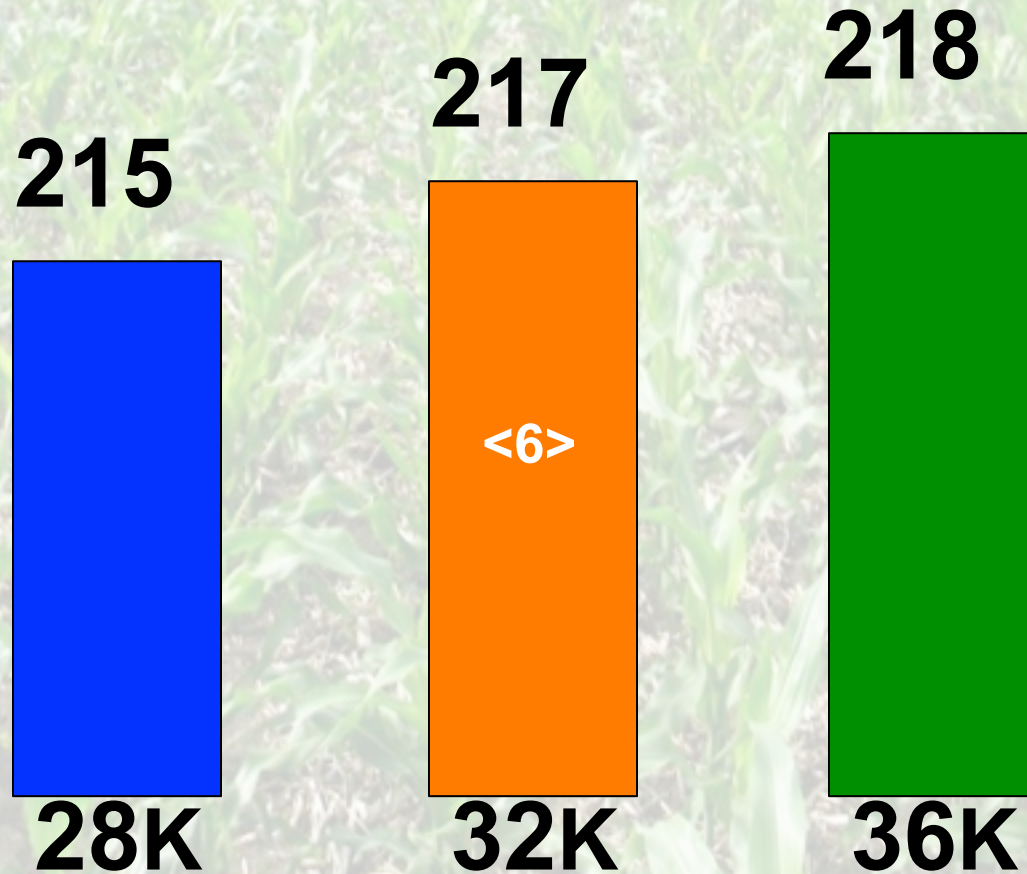
08-11 (4 Year) Corn Population Study



@ \$320/bag, 1K seeds cost \$4

Corn valued @ \$5bu

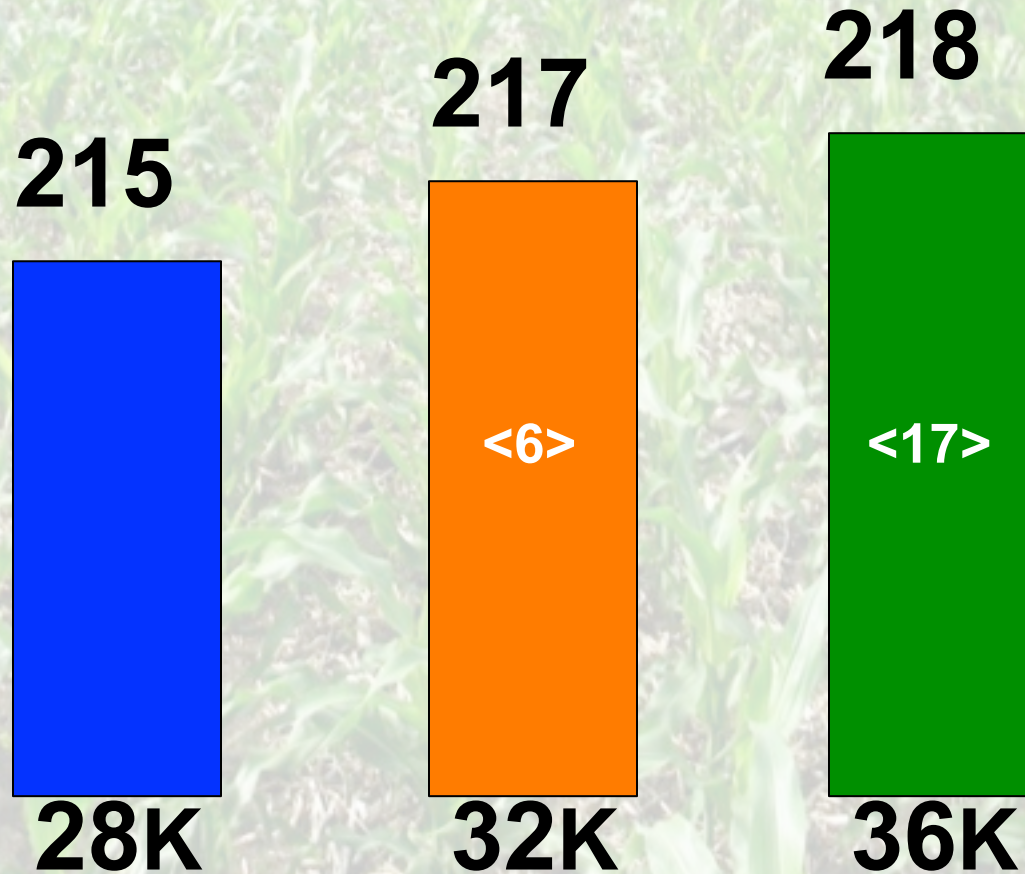
08-11 (4 Year) Corn Population Study



@ \$320/bag, 1K seeds cost \$4

Corn valued @ \$5bu

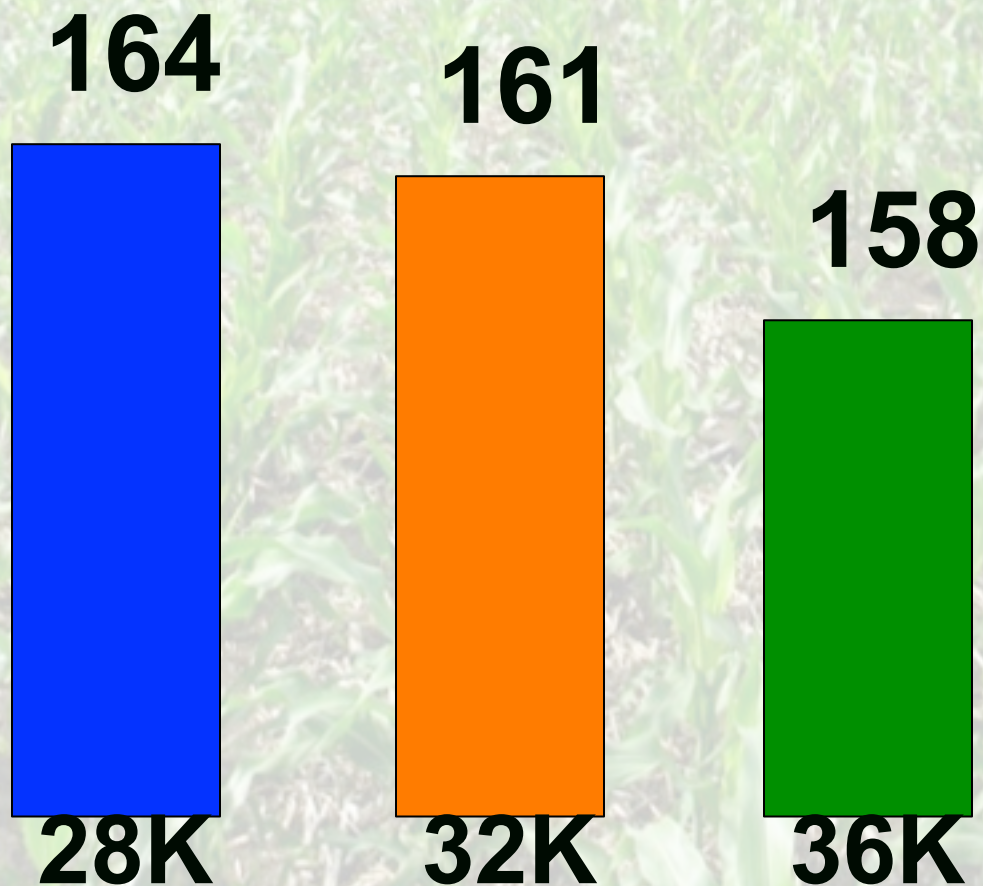
08-11 (4 Year) Corn Population Study



@ \$320/bag, 1K seeds cost \$4

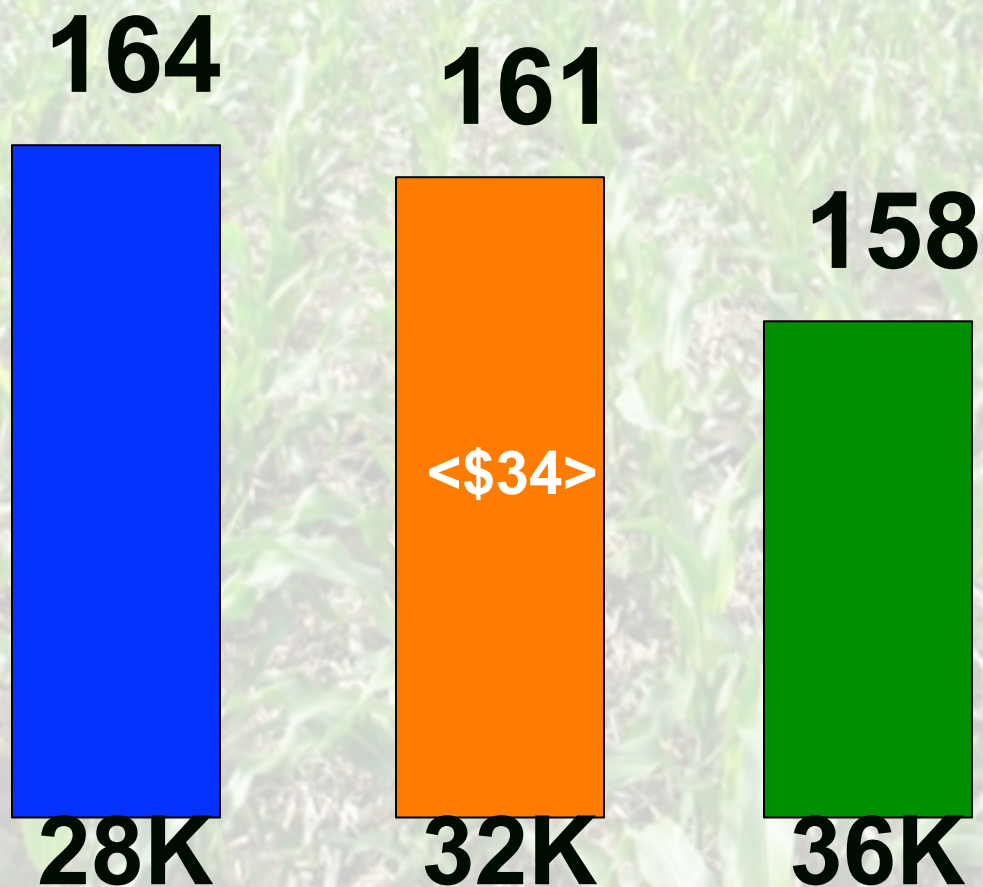
Corn valued @ \$5bu

2012 Corn Population Study



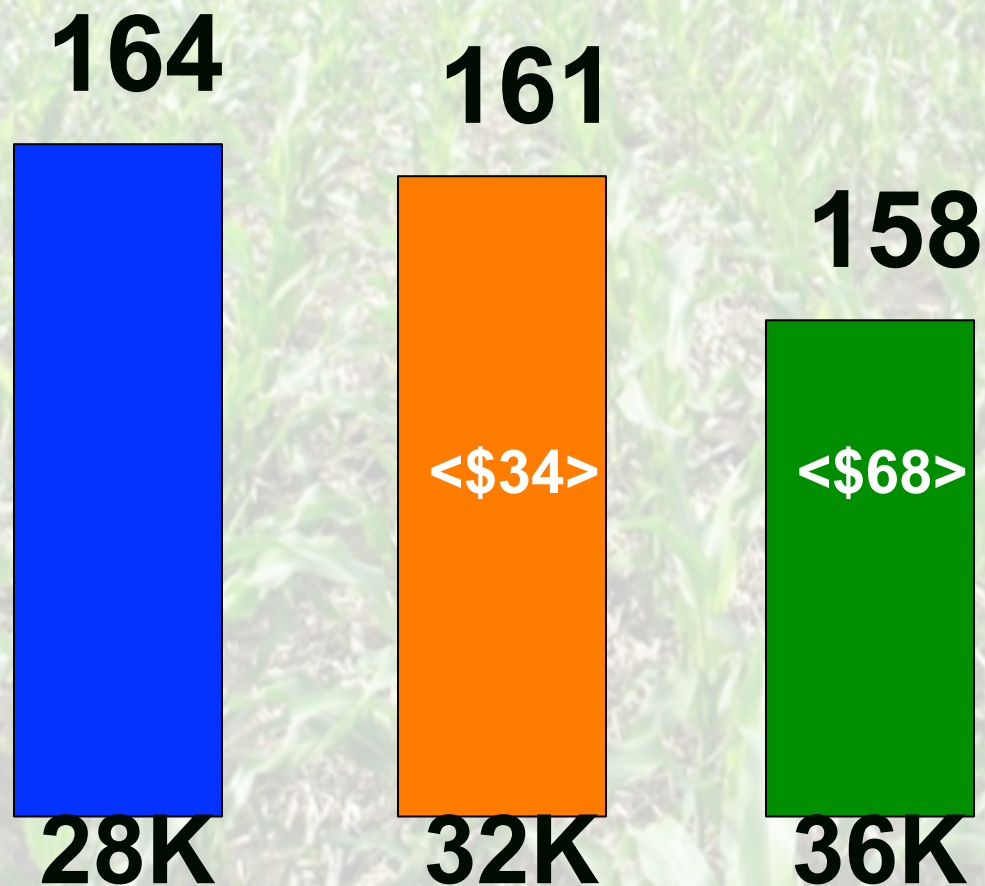
@ \$320/ bag, 1K seeds cost \$4

2012 Corn Population Study



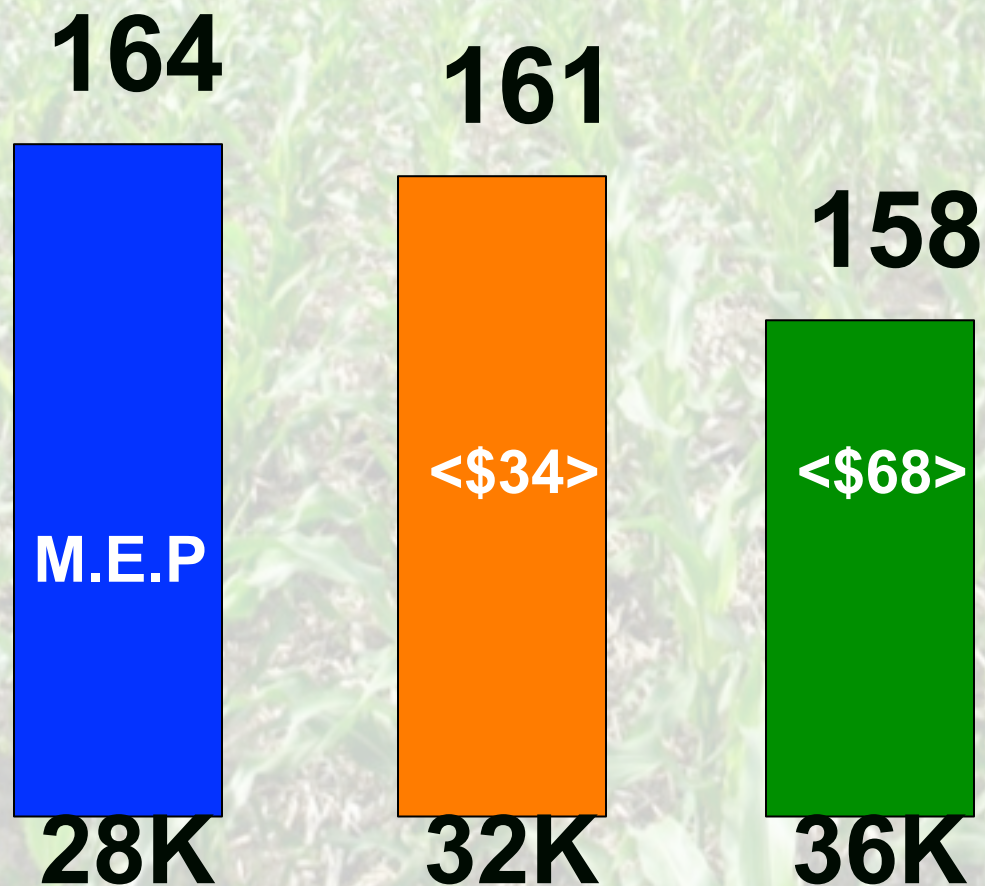
@ \$320/ bag, 1K seeds cost \$4

2012 Corn Population Study



**@ \$320/ bag, 1K seeds cost \$4
Corn Valued @ \$6bu**

2012 Corn Population Study



*@ \$320/ bag, 1K seeds cost \$4
Corn Valued @ \$6bu*



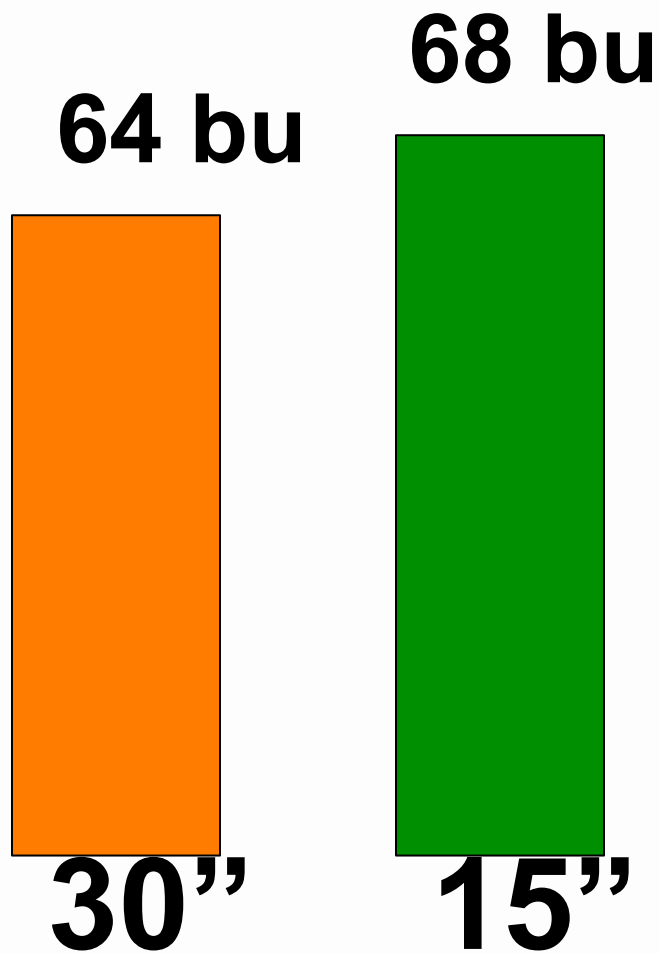
Thursday, January 17, 13



15" or 30"

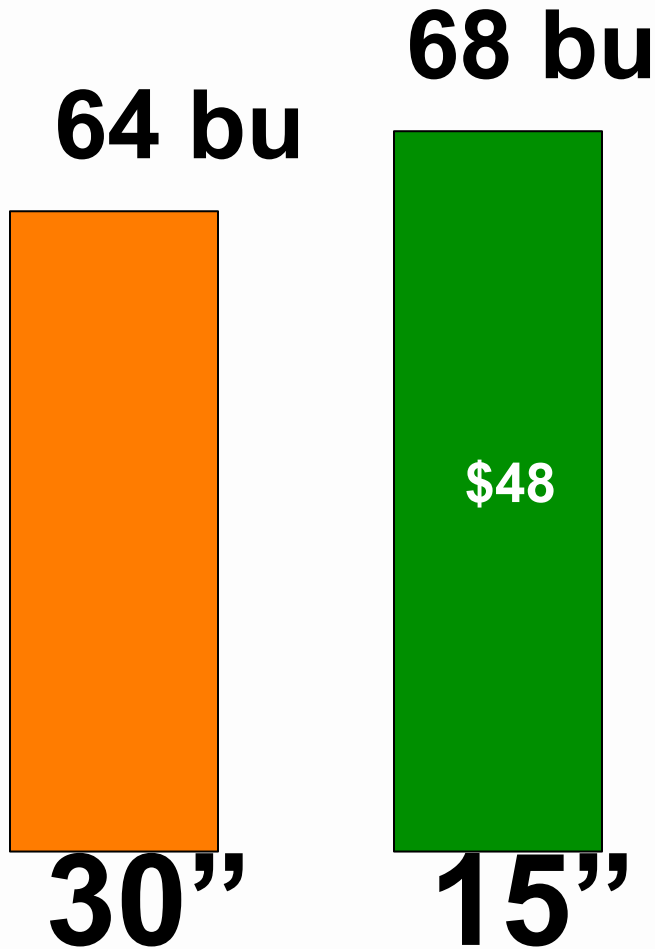
Soybean Row Spacing Study

08 - 2011



Soybean Row Spacing Study

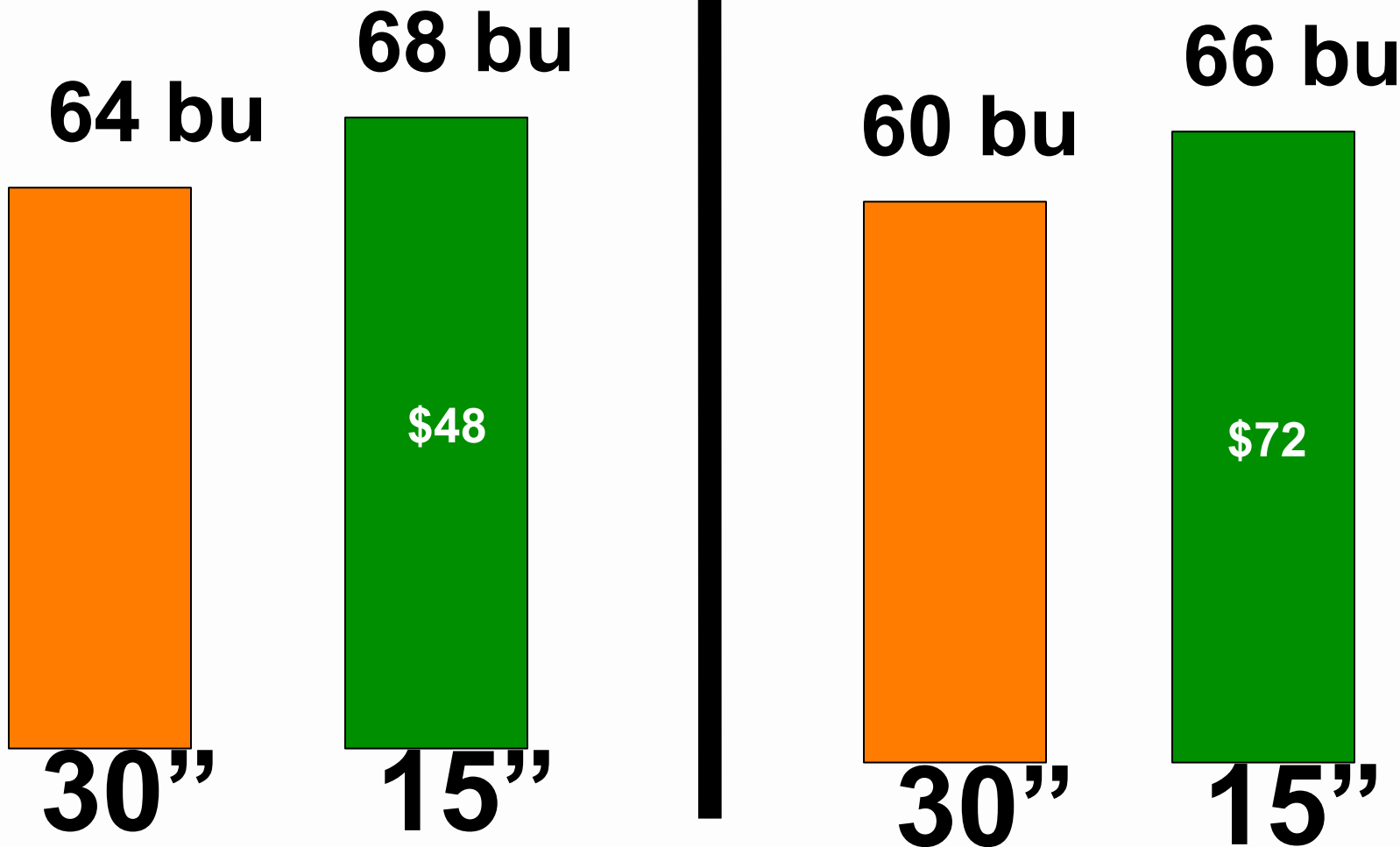
08 - 2011



Soybean Row Spacing Study

08 - 2011

2012

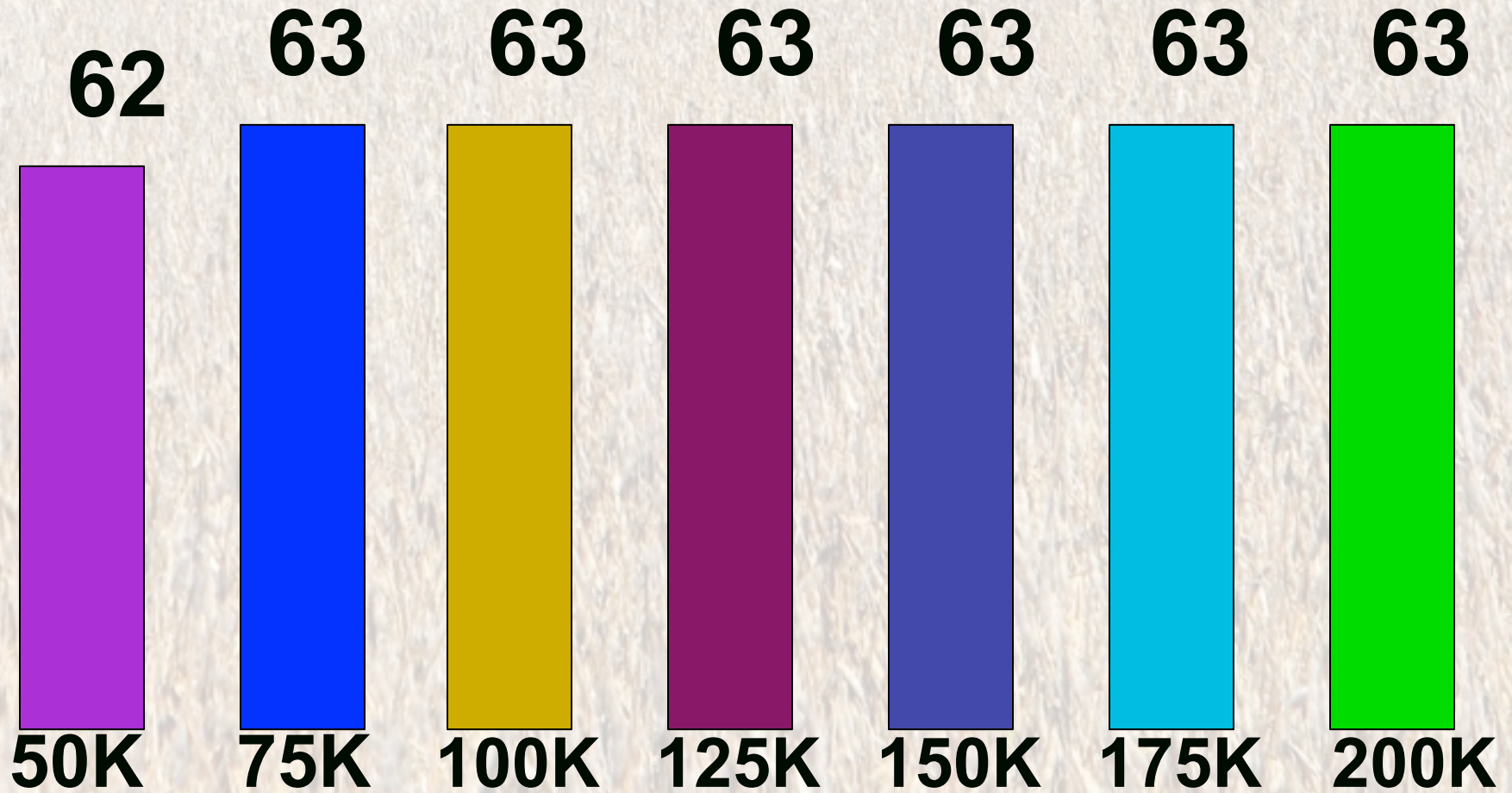




150,000

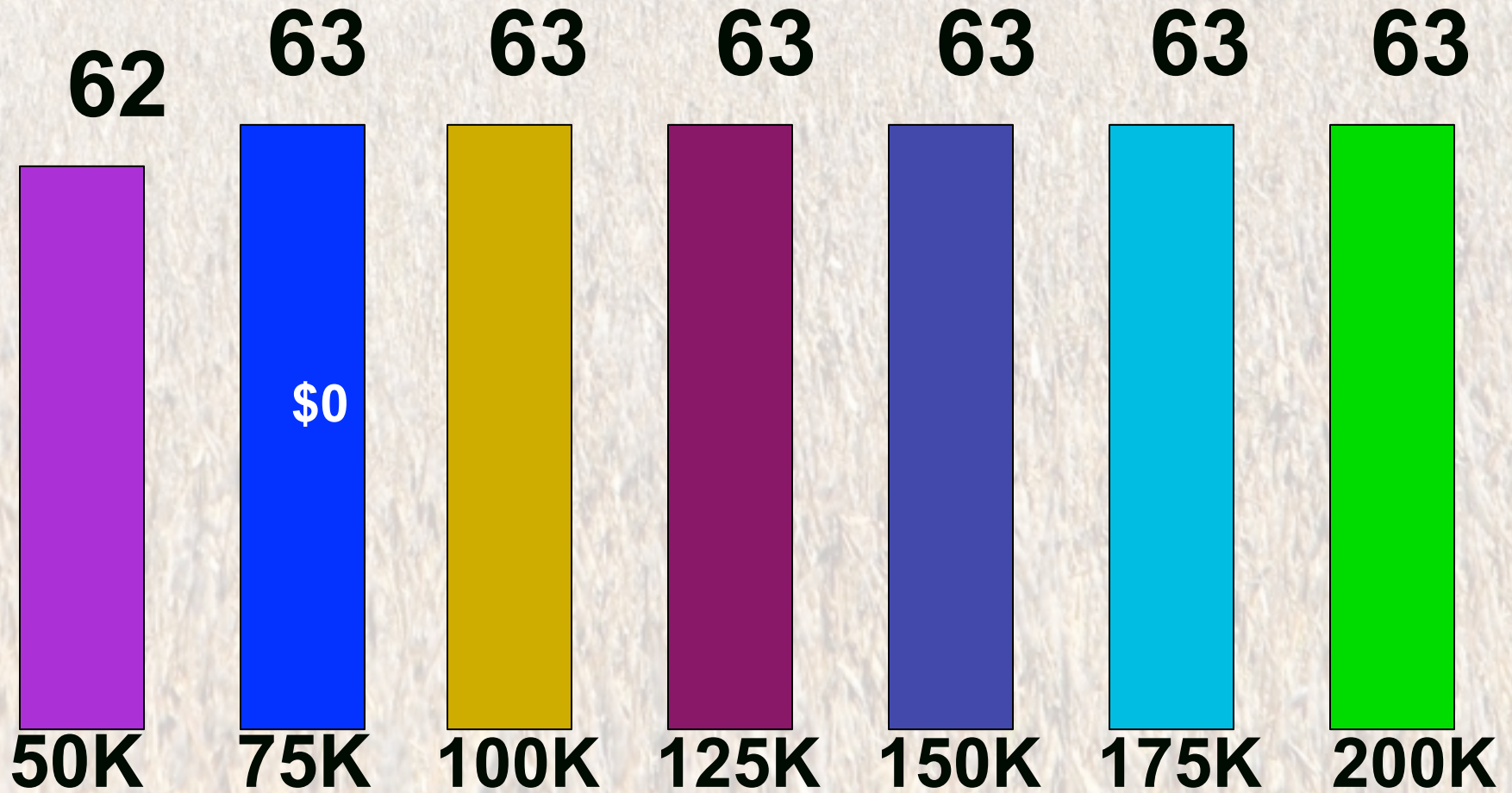
= 4 seeds/ft in 15" rows

Long Term (5 Year) Soybean "Planting" Population Study



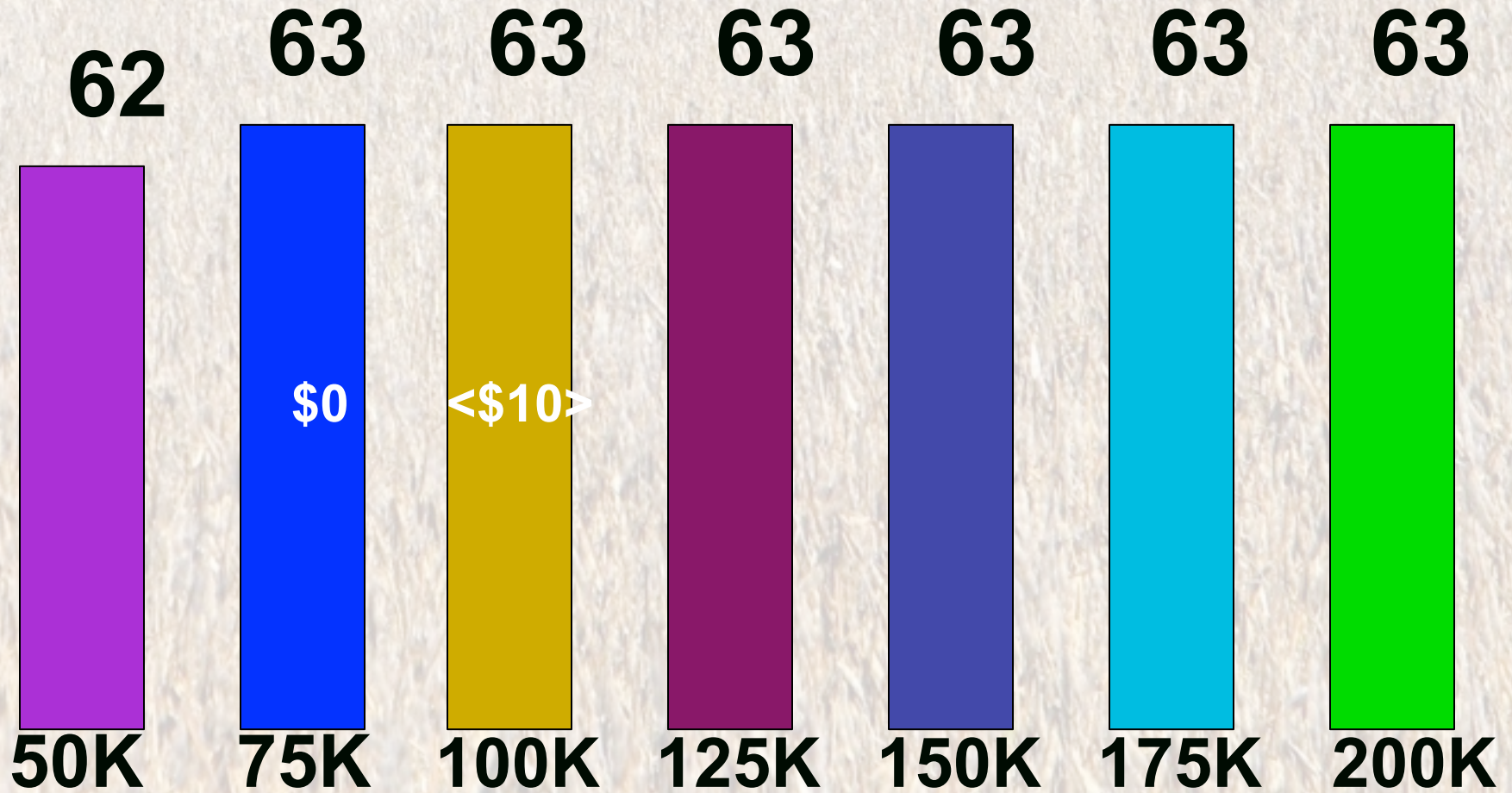
@ \$60/ bag, 25K seeds cost \$10

Long Term (5 Year) Soybean "Planting" Population Study



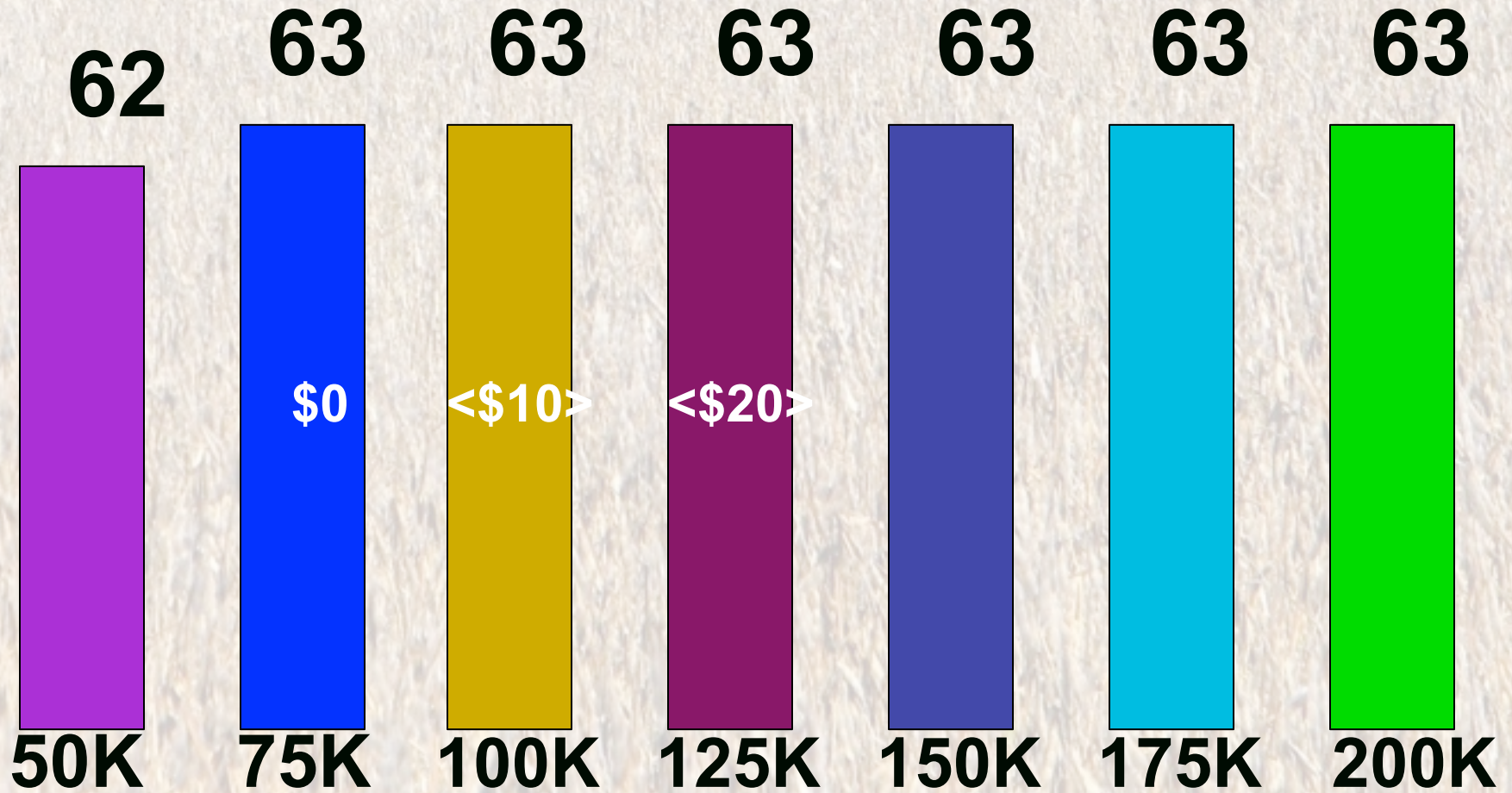
@ \$60/ bag, 25K seeds cost \$10

Long Term (5 Year) Soybean "Planting" Population Study



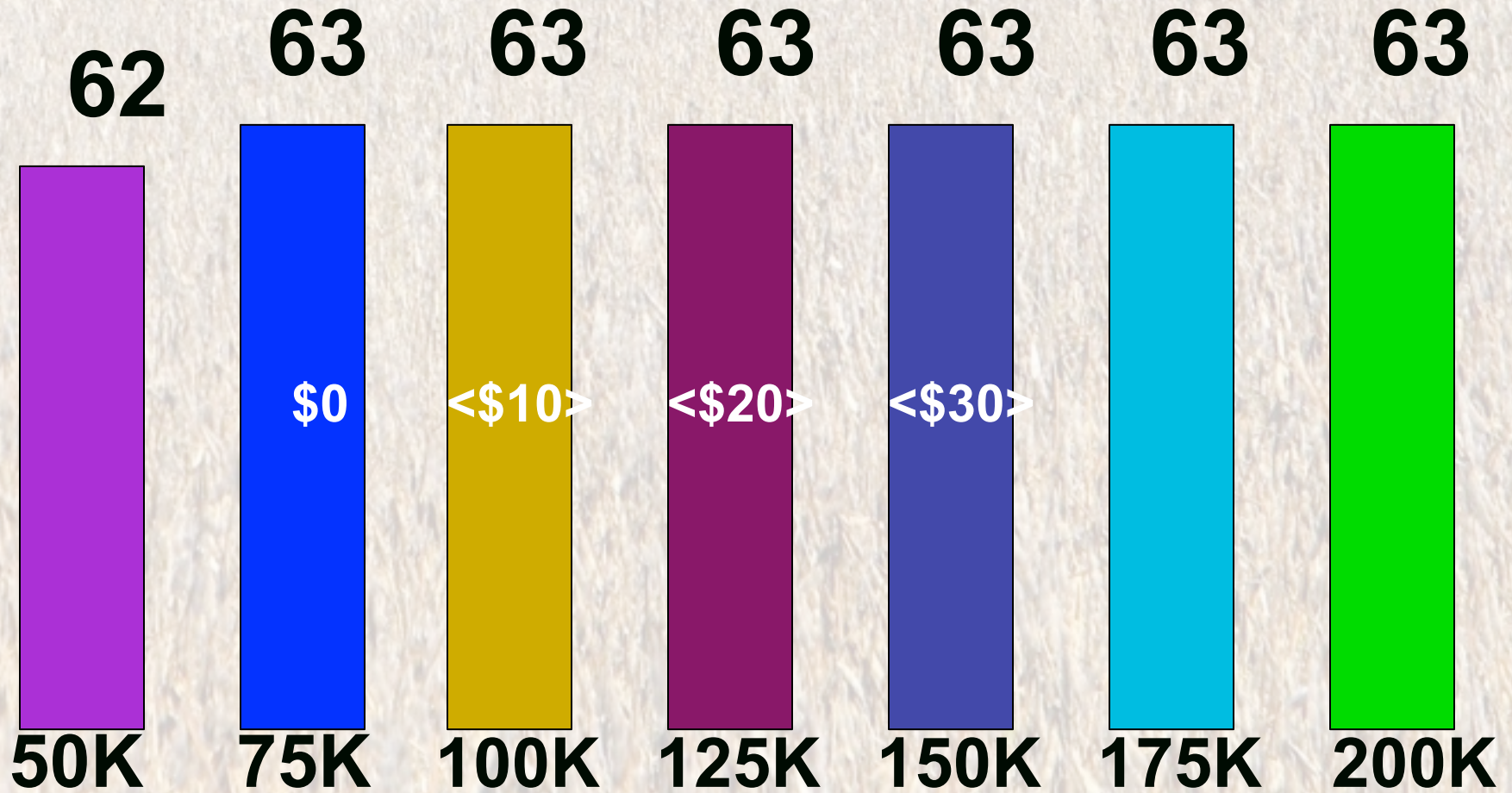
@ \$60/ bag, 25K seeds cost \$10

Long Term (5 Year) Soybean "Planting" Population Study



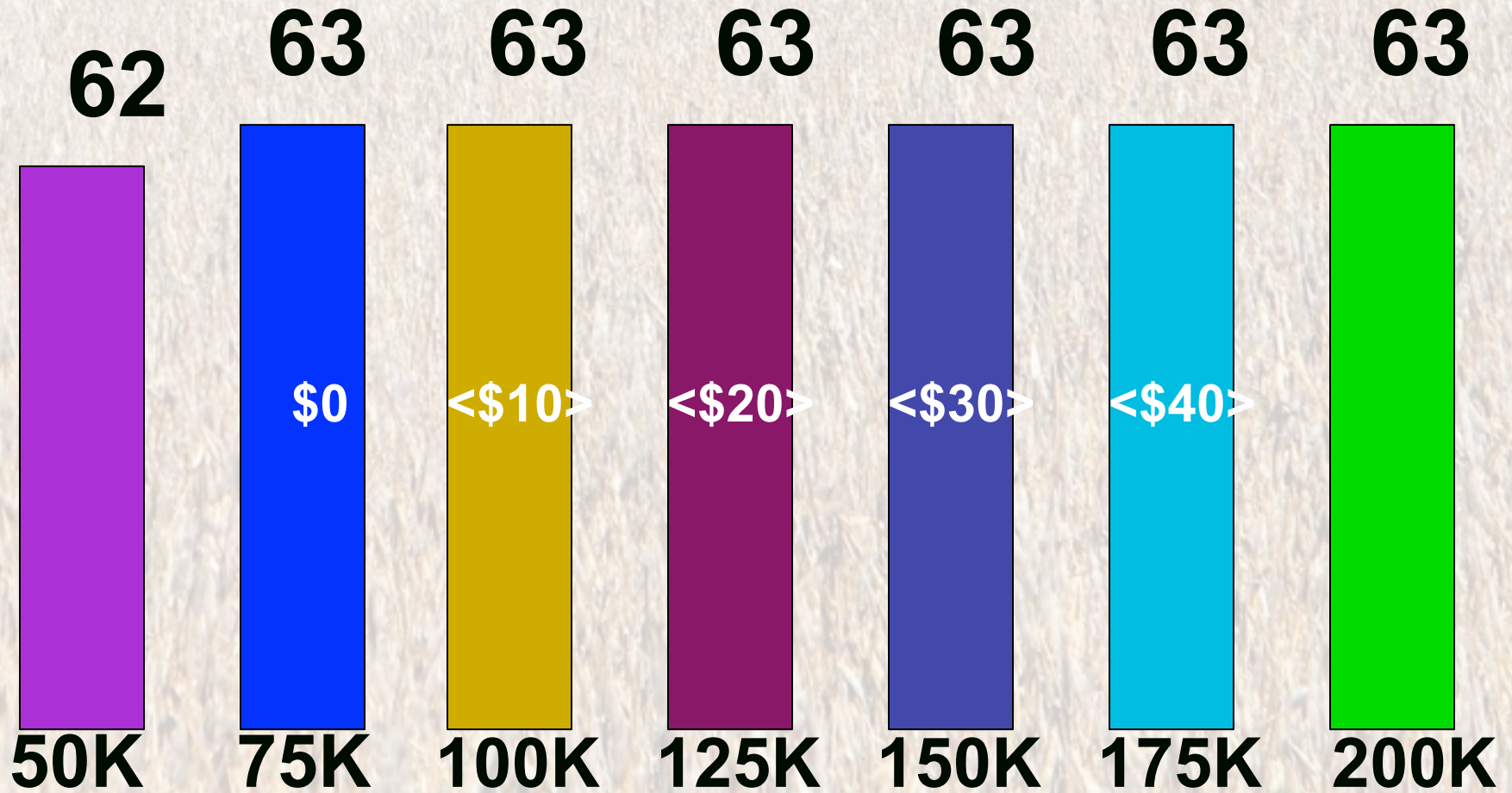
@ \$60/ bag, 25K seeds cost \$10

Long Term (5 Year) Soybean “Planting” Population Study



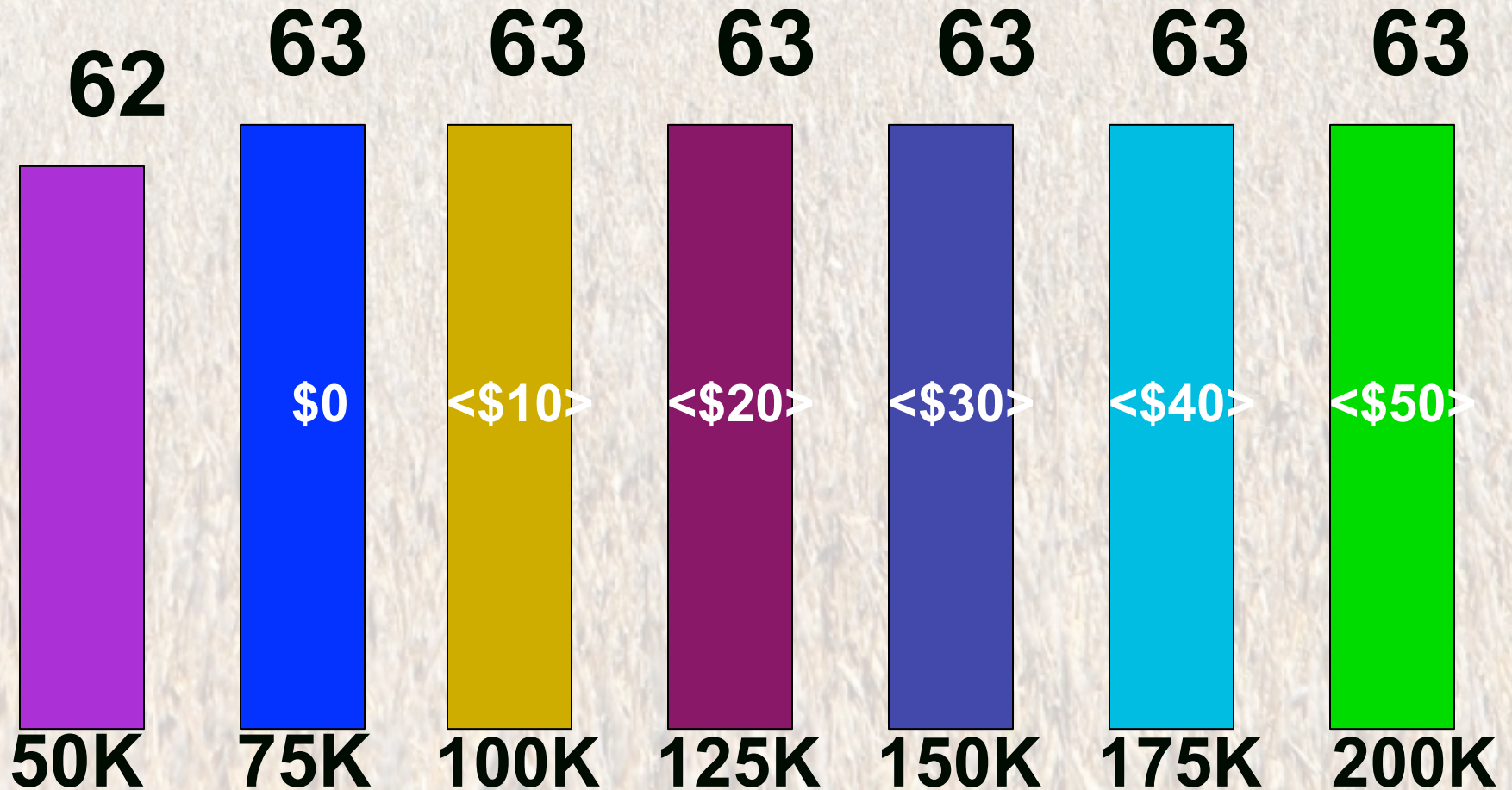
@ \$60/ bag, 25K seeds cost \$10

Long Term (5 Year) Soybean "Planting" Population Study



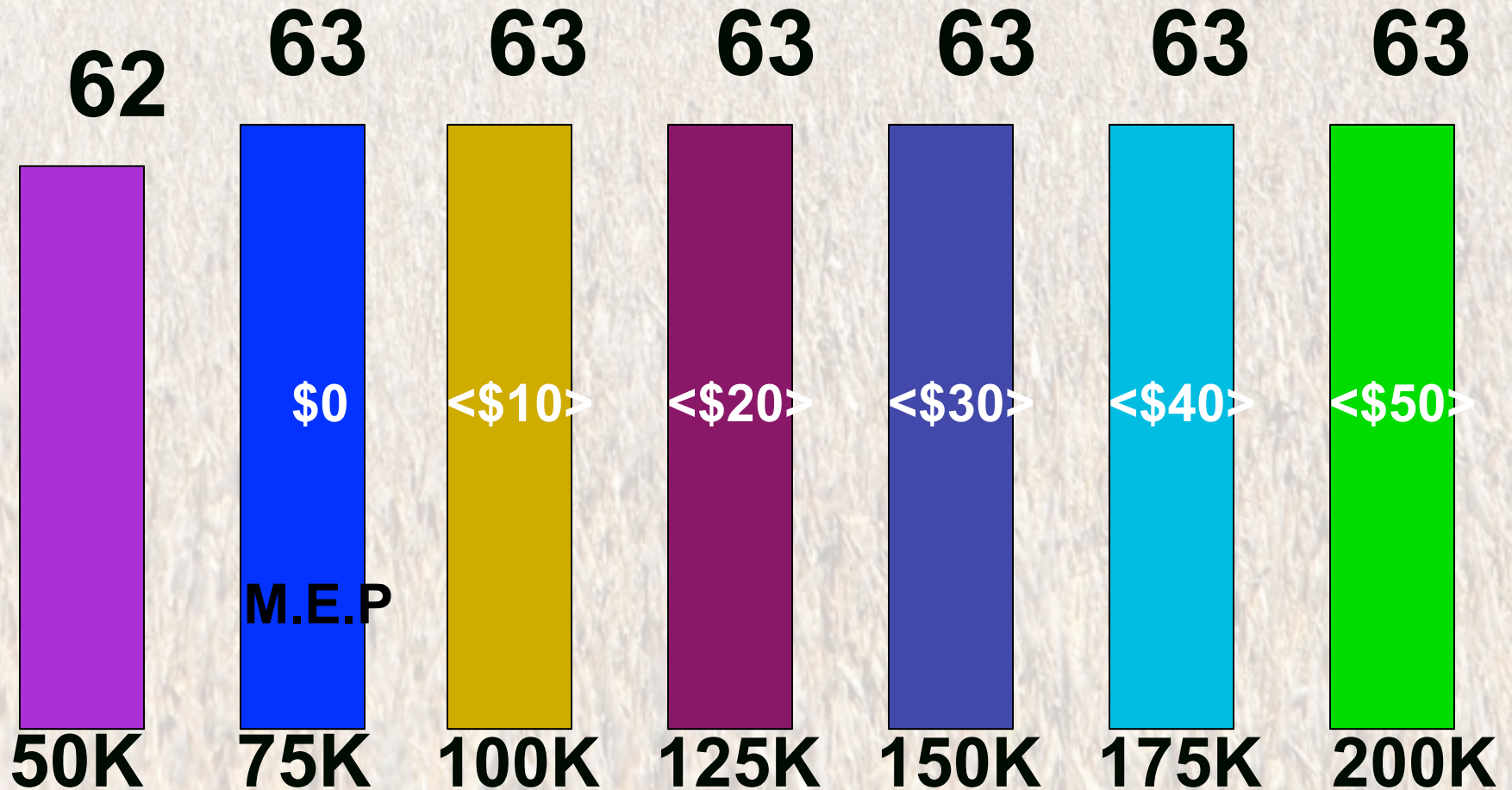
@ \$60/ bag, 25K seeds cost \$10

Long Term (5 Year) Soybean “Planting” Population Study



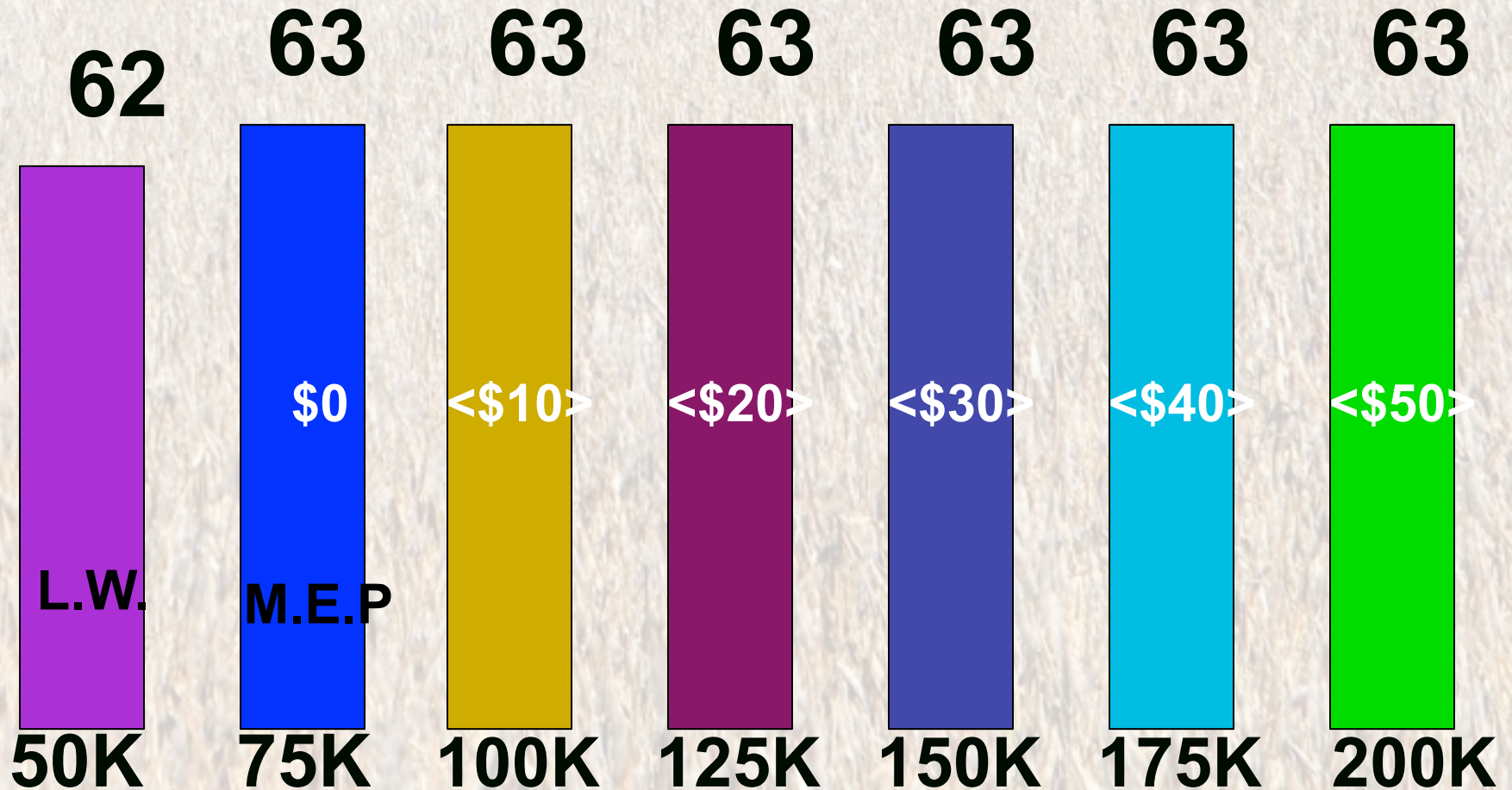
@ \$60/ bag, 25K seeds cost \$10
**As population increases potential for lodging
and white mold increase**

Long Term (5 Year) Soybean "Planting" Population Study



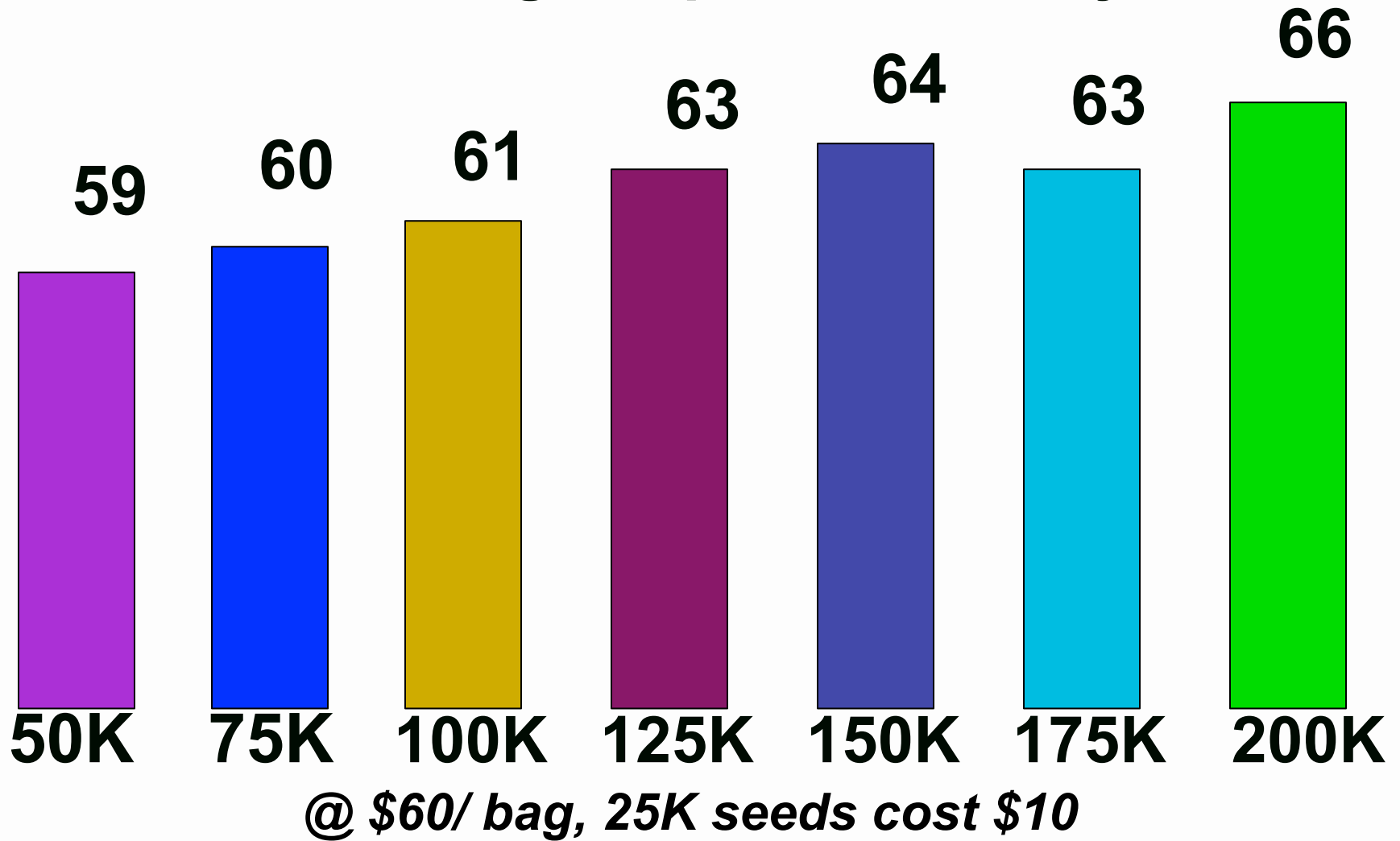
@ \$60/ bag, 25K seeds cost \$10
**As population increases potential for lodging
and white mold increase**

Long Term (5 Year) Soybean "Planting" Population Study

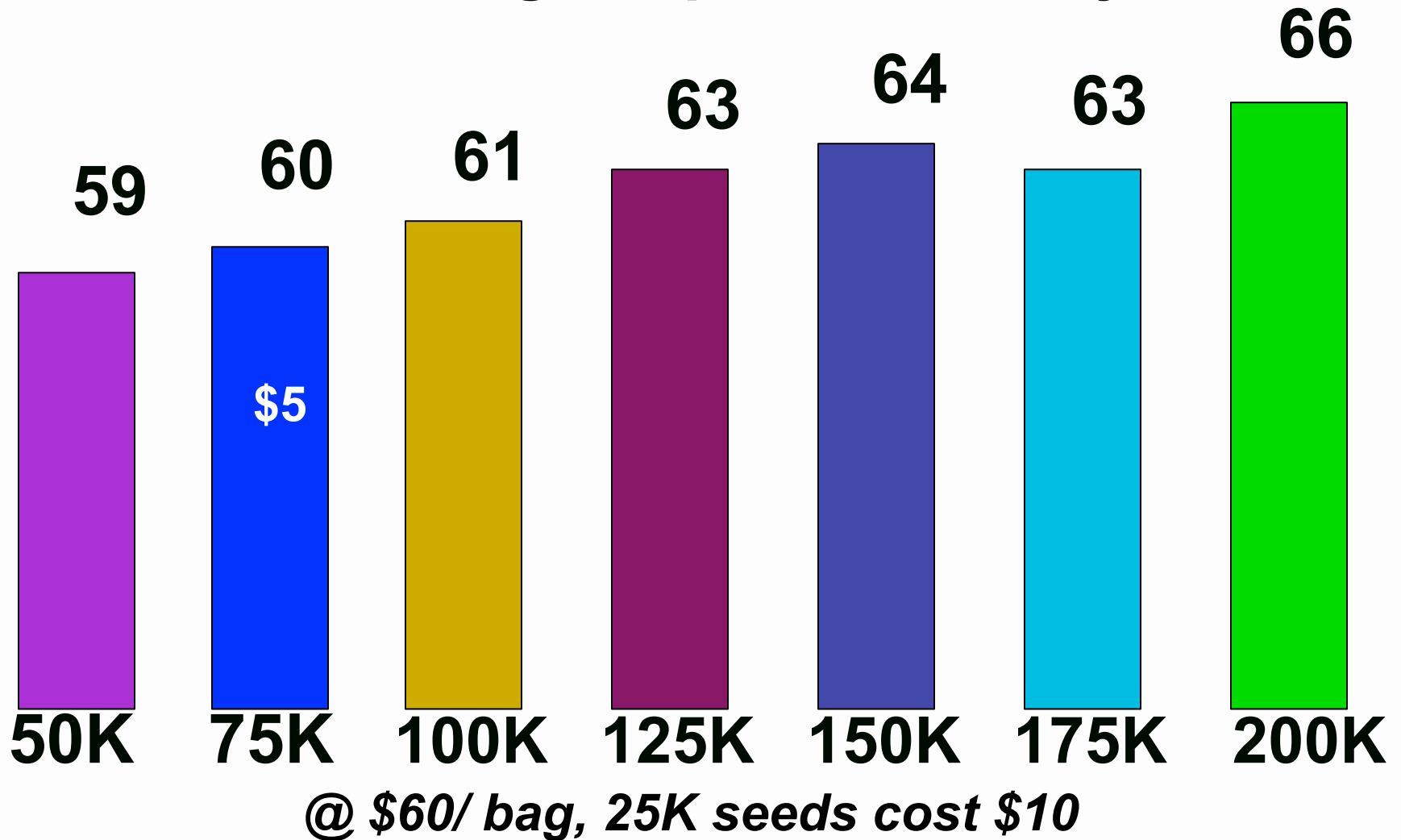


@ \$60/ bag, 25K seeds cost \$10
**As population increases potential for lodging
and white mold increase**

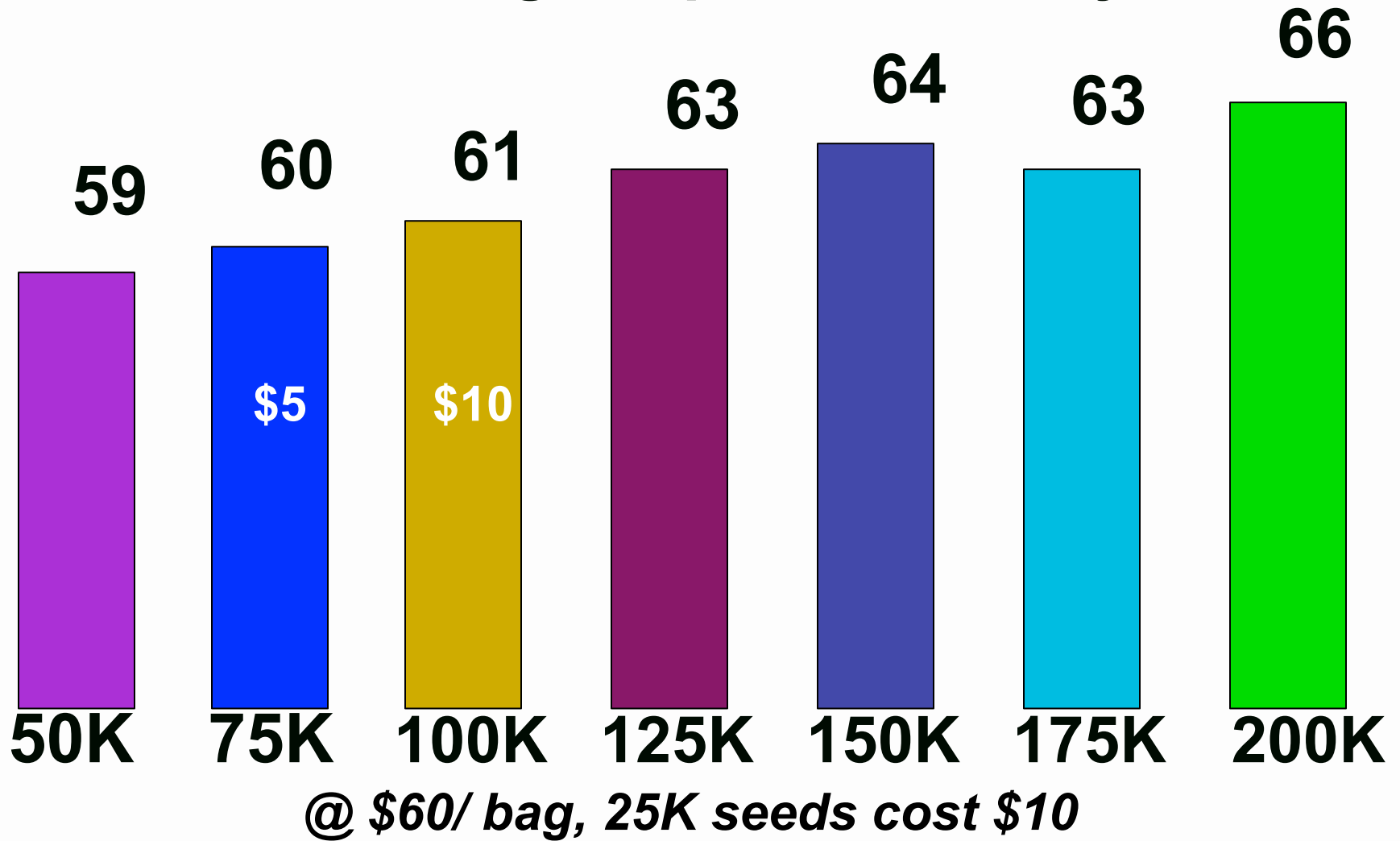
2012 Soybean “Planting” Population Study



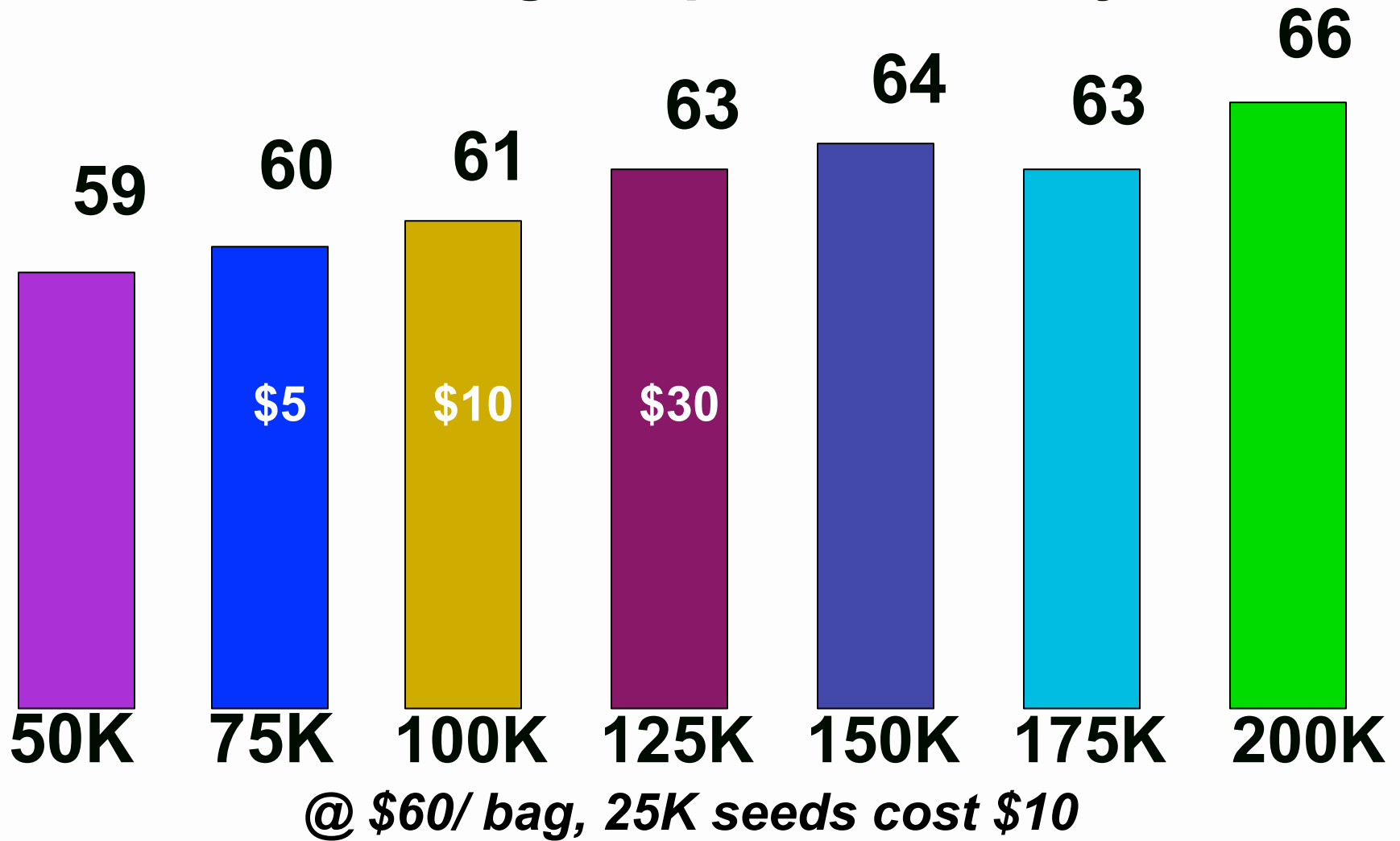
2012 Soybean “Planting” Population Study



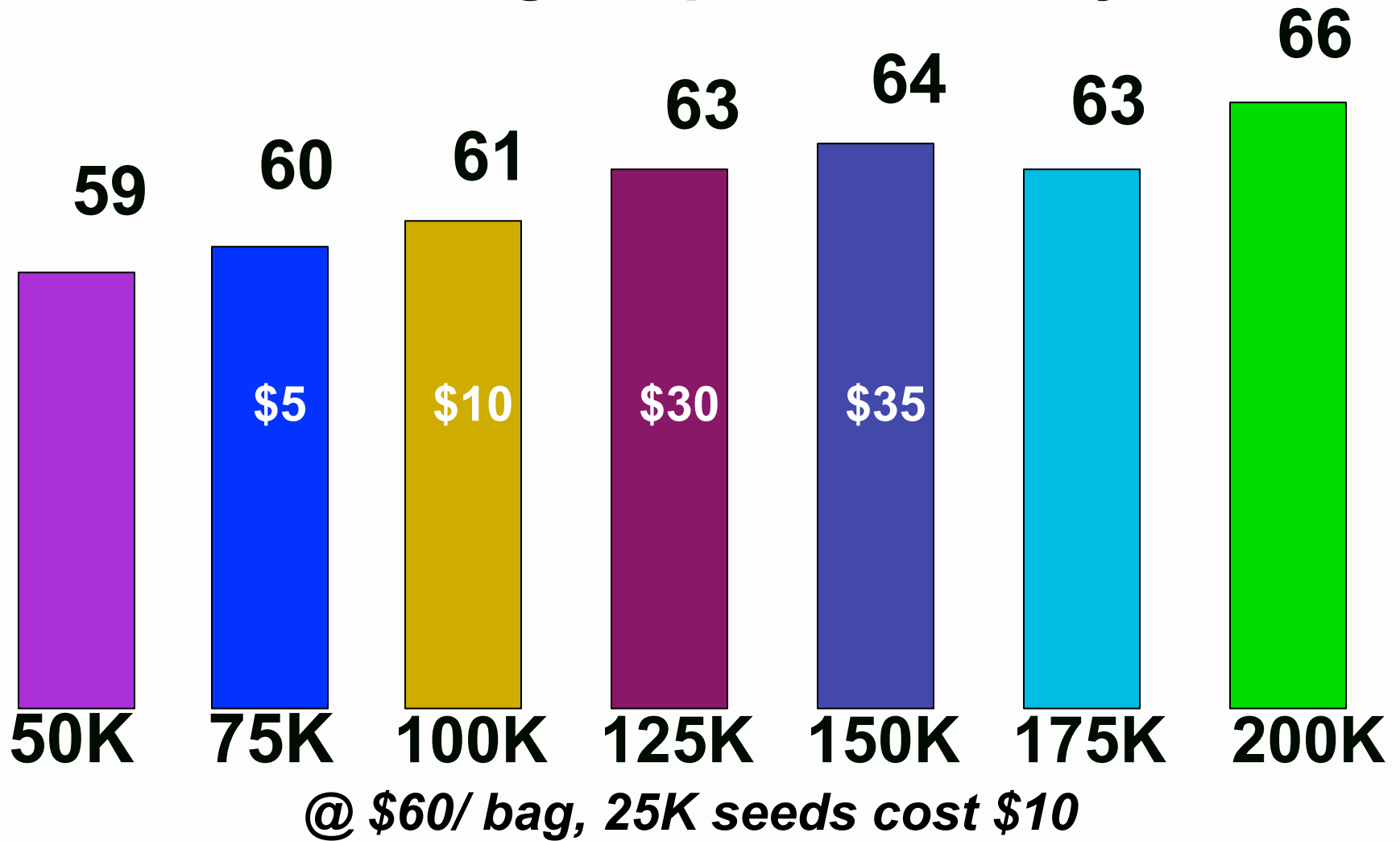
2012 Soybean “Planting” Population Study



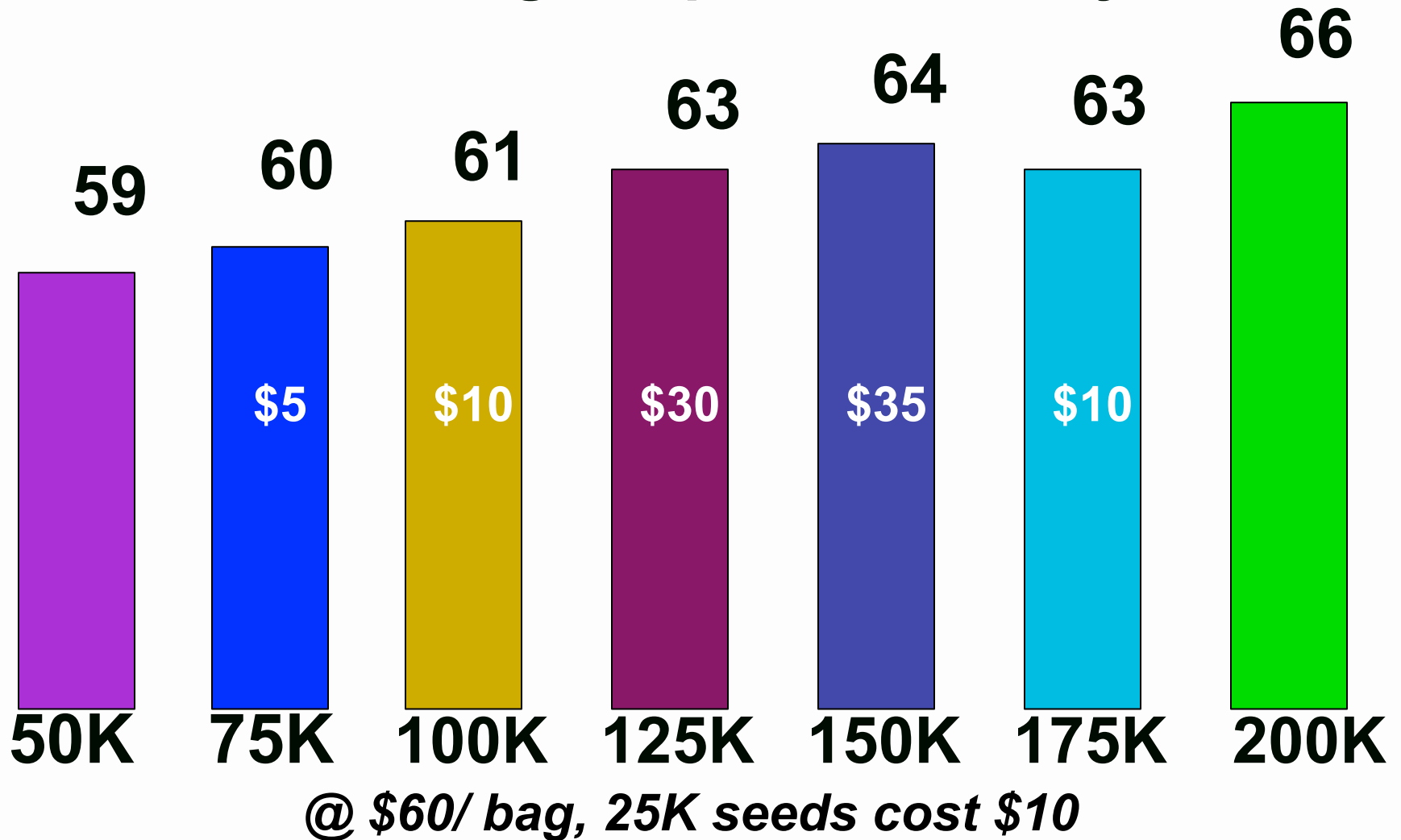
2012 Soybean “Planting” Population Study



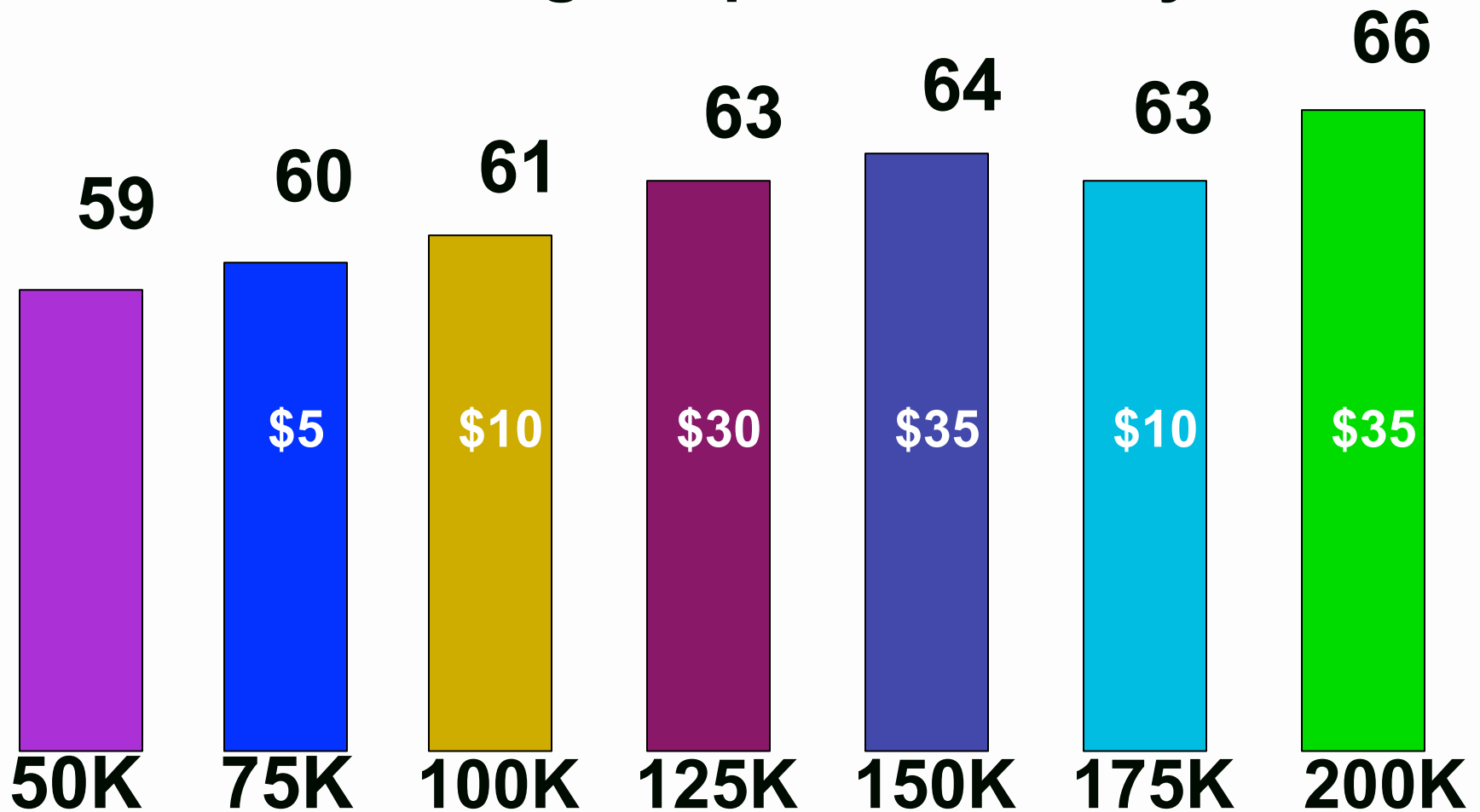
2012 Soybean “Planting” Population Study



2012 Soybean “Planting” Population Study

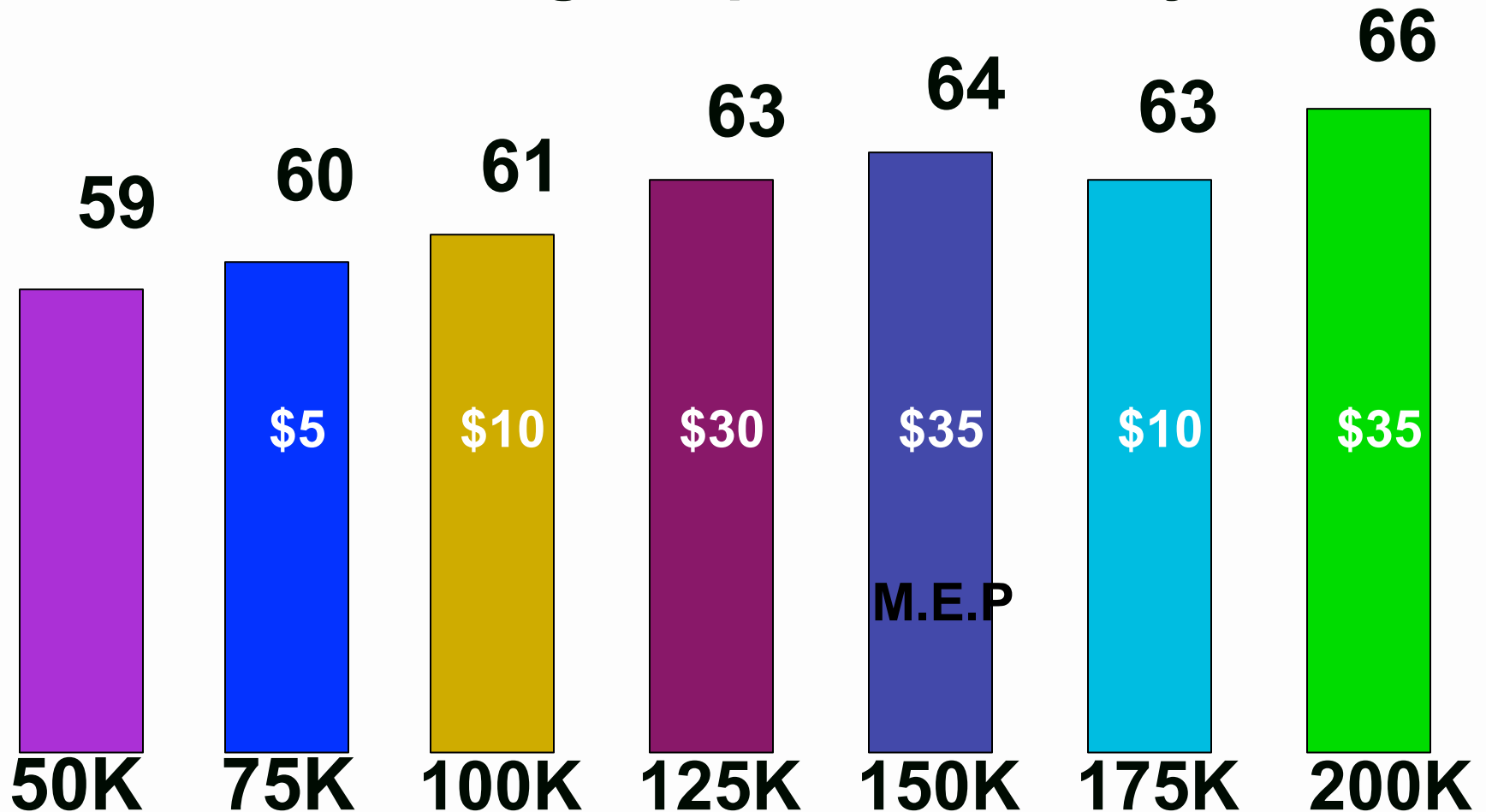


2012 Soybean “Planting” Population Study



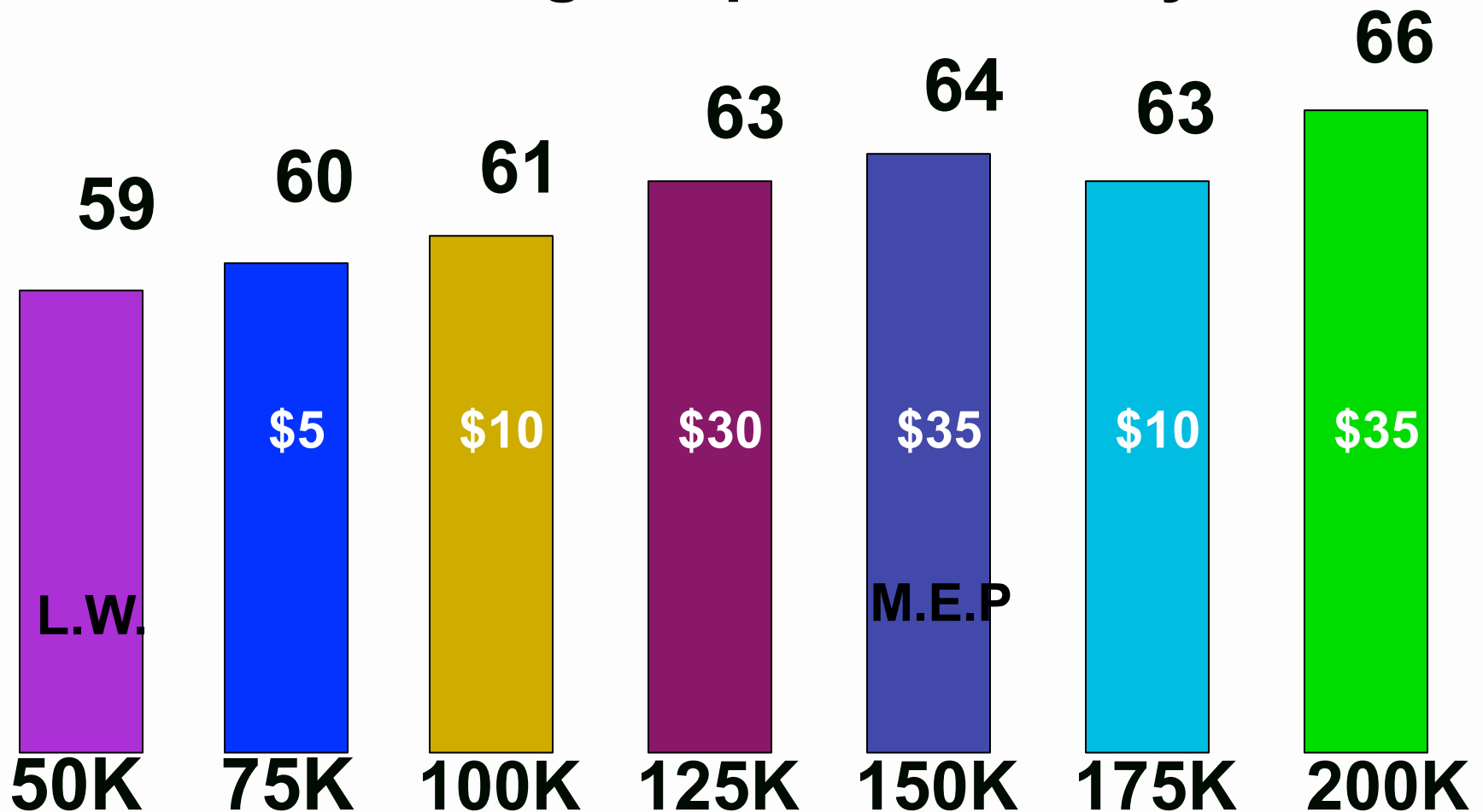
@ \$60/ bag, 25K seeds cost \$10
***As population increases potential for lodging
and white mold increase***

2012 Soybean “Planting” Population Study



@ \$60/ bag, 25K seeds cost \$10
***As population increases potential for lodging
and white mold increase***

2012 Soybean “Planting” Population Study



@ \$60/ bag, 25K seeds cost \$10
***As population increases potential for lodging
and white mold increase***



Combating Weather Extremes



Combating Weather Extremes

- No-Till



Combating Weather Extremes

- No-Till
- Dry Fertilizer



Combating Weather Extremes

- No-Till
- Dry Fertilizer
- Narrow Rows



Combating Weather Extremes

- No-Till
- Dry Fertilizer
- Narrow Rows
- Seeding Rates



Combating Weather Extremes

- No-Till
- Dry Fertilizer
- Narrow Rows
- Seeding Rates
- **QUESTIONS**

On Farm Research Made Easy





Marion Calmer and Harry Stine FPS 2012

October 2012 www.FarmProgress.com

WALLACES FARMER.

Time to cool
your corn Page 7

Update on livestock
laws Page 10

Applying N this fall? Page 33

Aflatoxin blending rules Page 68



Narrow harvest

By ROD SWOBODA

CORN harvested in fields in a 12-inch row width isn't something you see every day. But you may someday, perhaps sooner than you think. To get higher yields, it's going to take higher plant populations, which require narrower rows to spread out the plants on each acre. That does two important things: It avoids crowding, and it lets plants have greater access to soil moisture and nutrients.

In a 12-inch row width, plants within the row can be 10 inches apart with room to grow, instead of 3 inches apart in a 30-inch row competing with one another for water, nutrients and sunlight. Most corn in Iowa is planted in 30-inch rows at a population of 34,000 to 36,000 plants per acre.

A showstopper at this year's Farm Progress Show in Iowa was a 60-row planter and a 20-row corn head, both built for 12-inch rows. Stine Seed Co. of Adel had the equipment custom-built to test its high-population corn hybrids. Last spring Stine planted 2,500 acres at 51,000 seeds per acre in the ultra-narrow rows on local Stine farms in central Iowa. Each plant had about 10 inches of equidistant space.

At the Farm Progress Show, the planter was displayed at Stine's exhibit and the corn head at the Calmer Corn Heads exhibit. Calmer built the corn head for Stine. Both exhibits grabbed attention. "Lots of growers stopped and asked good questions, interested in the potential to increase yields and other benefits of moving to narrow-row corn," says David Thompson, national marketing director for Stine Seed.

Narrow-row corn has been discussed for years. In the last five to 10 years, technology and corn production practices have evolved, and more growers are



ULTRA-NARROW: Marion Calmer (left), who built the world's first 12-inch-row corn head (pictured), and Fred Eby, farm manager for Stine Seed, pause during harvest of ultra-narrow row corn on a farm near Perry in central Iowa this fall.

Key Points

- Narrow-row, high population corn is hot topic at farm show.
- More growers are interested in narrow rows to boost yield.
- New advances in machinery and genetics show promise.

taking a look at row spacing and plant population. "I'm not sure many farmers were ready for this conversation even five years ago," says Thompson. Today, with higher corn prices and advances in equipment and corn genetics, many meaningful

conversations and more field research are going on.

High-population hybrids

Over the past 15 years, Harry Stine, president of Stine Seed, has been developing corn hybrids specifically adapted for higher populations and narrow rows. Stine has new hybrids specifically designated as HP, or high population, hybrids. They are narrow in plant architecture, grow leaves more upright instead of wide and are shorter in height.

How did the high-population corn perform in a low-moisture

year? It did quite well — better than corn planted in 30-inch rows at normal populations. The day Wallace Farmer rode the combine in a Stine field of commercial corn, the yield monitor averaged 242 bushels per acre, not bad for a field that only got an inch and a half of rain in July and just a few traces in August. Harvest population in the 12-inch rows was about 49,000 plants per acre.

In a good year in 30-inch rows, many fields in Iowa will yield 200 bushels per acre. Stine is convinced that planting high populations of the right hybrids

in ultra-narrow rows of 12 or 15 inches is the way corn yields will someday climb to 300 bushels per acre for many growers.

Marion Calmer is also a believer in narrow-row corn becoming the norm. He invented the first narrow-row corn head in the mid-1990s. "If farmers are to gradually grow 300-bushel-per-acre corn or higher, we're going to have to do it in 12-inch, 15-inch or 20-inch rows. And we'll need the corn genetics to support high plant populations," he says.

■ For more, see Page 6.



$1/3 \text{ lb} \times 51,000 = 300\text{bu}$



Squeezing No-Till Corn Into 12-Inch Rows

**Friday
3:30-4:30**