

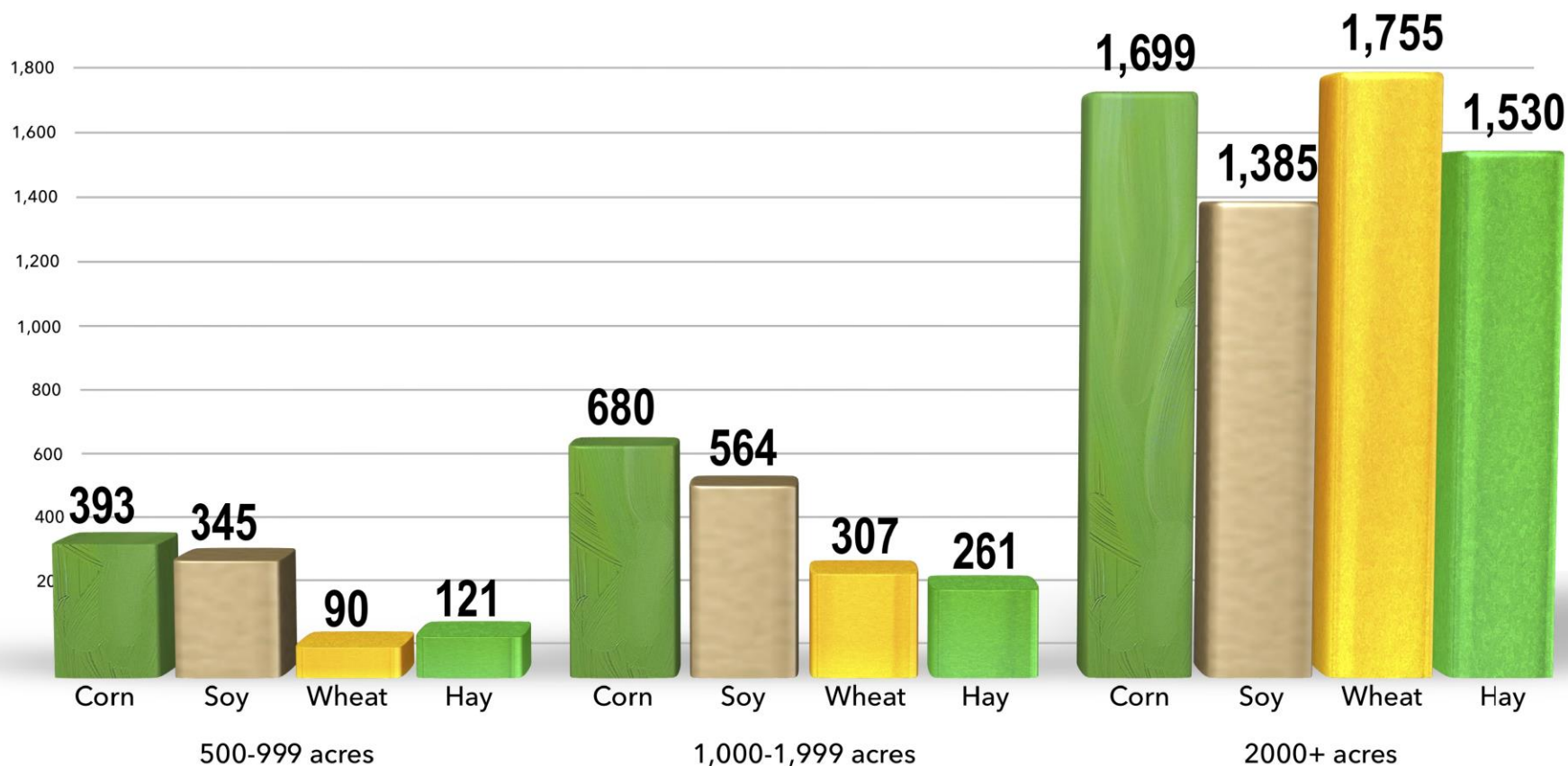
THE FARMER SPEAKS

Millennium Research Report commissioned by
J.L. Farmakis, Inc.


January, 2019

AVERAGE CROP ACRES FOR 2019

BY FARMER ACRE CATEGORY



Q: How many acres of the following crops do you intend to grow this year?

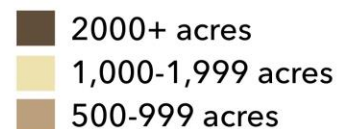
A close-up, macro photograph of several interlocking metal gears. The gears are made of a dark, possibly steel, material with visible teeth. The lighting is dramatic, with strong highlights on the edges of the teeth and deep shadows in the gaps between them, creating a sense of mechanical complexity and precision.

2019 will be challenging...

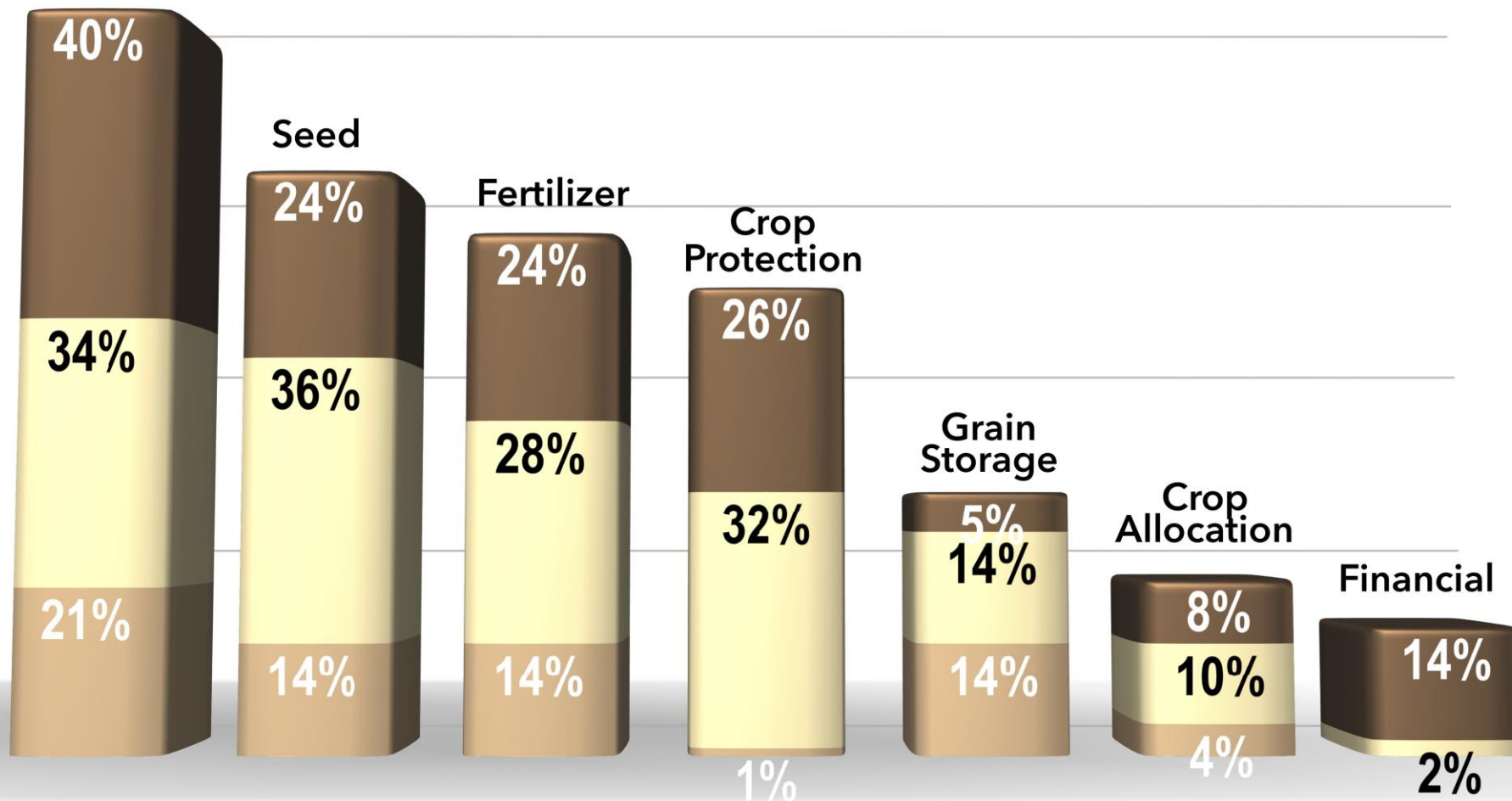
MORE CHANGE IS COMING

Specific changes depend upon farm size
and varies by category.

2019 TOP CHANGES RANKED



Equipment



Q: In which of the following areas, if any, have you made or will you make changes for the 2019 season, compared to 2018?

With the potential of
genetics to make more
yield from every acre...

SEED TOPS LIST OF INPUT CHANGES



Farmers use record
number of traits in seed
to protect yields

**1/2 OF
ACRES GET
FULL TRAITS**

Farmer adoption of seed-based
technology shows little change given the
promise of higher yields and more
effective weed control.

Crop protection dominated
by the advent of new tools

DICAMBA GETS HIGH MARKS

The second year of field use proves the effectiveness of the system. Farmers rated their satisfaction as 8.1 overall, with an 8.8 rating for 2000+ acre farmers.



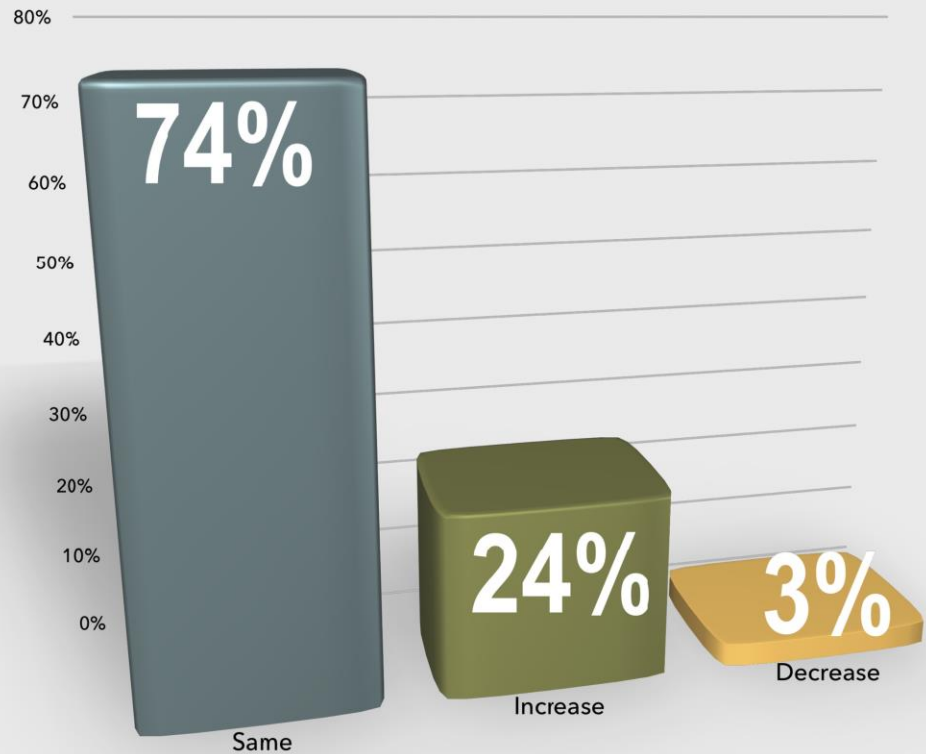
**Dicamba soybean
technology is on the rise**

INCREASED USE IN 2019 EXPECTED

- Yield increases reported by 49% of dicamba users
- Average yield increase was 10%
- Among 2000+ acre growers the yield increase was 12%

With the positive impact on weed control and the yield results of 10-12% improvement, it is no surprise that dicamba-traits in soybeans and dicamba herbicides dominate the conversations about weed control today. It is a vital system to combat resistant weed populations in key soybean production areas and farmers intend to expand its use in 2019.

2019 PLANS FOR PLANTING DICAMBA-TRAIT SOYBEANS





Prices are only going up so
farmers continue to pursue...

MANAGING NUTRIENTS BETTER

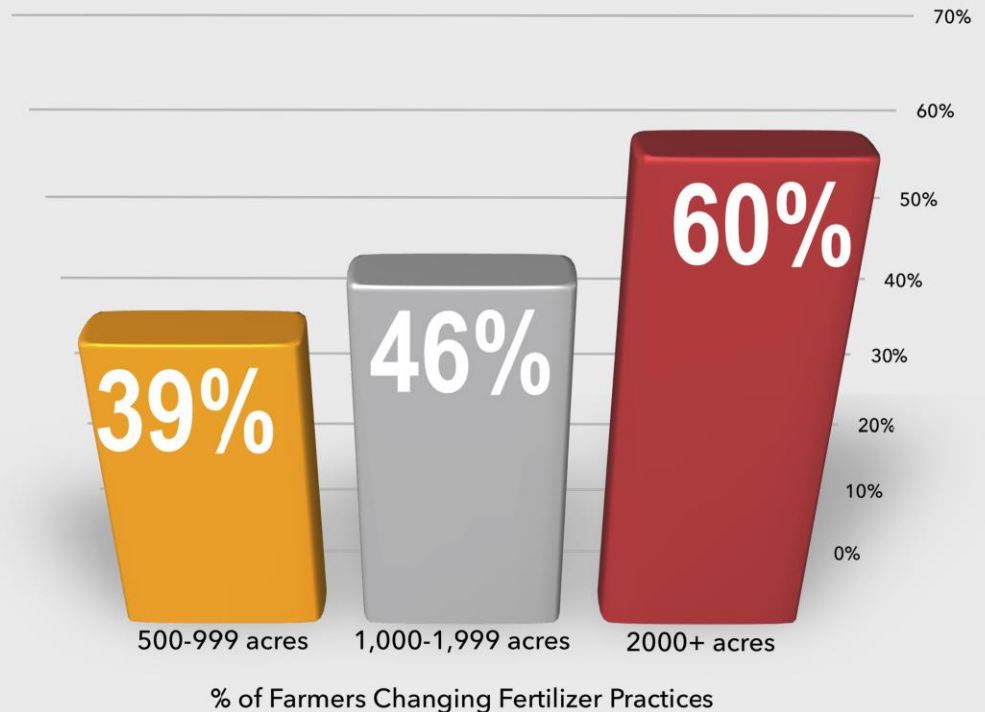
This major input has opportunities for improved efficiency and our research show multiple approaches are being used to maximize the investment and minimize losses into the environment.

As acres increase so does the likelihood a farmer in our survey is making

CHANGES FOR FERTILIZER EFFICIENCY

- A wide range of changes are included in what farmers will do differently on their farms in 2019

MANAGING FERTILITY IS A KEY COMPONENT FOR YIELD AND REMAINS A FOCUS FOR FARMERS



Q: When thinking about fertilizer application and efficiency, what do you expect to be your approach?

Farmers quick to
adopt what works to

PROTECT THE CROP

New active ingredients are few
and far between. When
technology enables the use of a
new tool, adoption can happen
rapidly.

