State of the Farm

2024 REPORT

BUSHEL

About the 2024 Report

METHODOLOGY

- Online survey
  - Data collected December 2023
- 871 respondents
  - Respondents didn't answer every question, so responses vary by question.
- U.S. row-crop and specialty-crop farmers

KEY QUESTIONS

- Demographics
- Farming practices utilized and business impact
- Grain marketing strategies and tools
- Technology usage and perceptions

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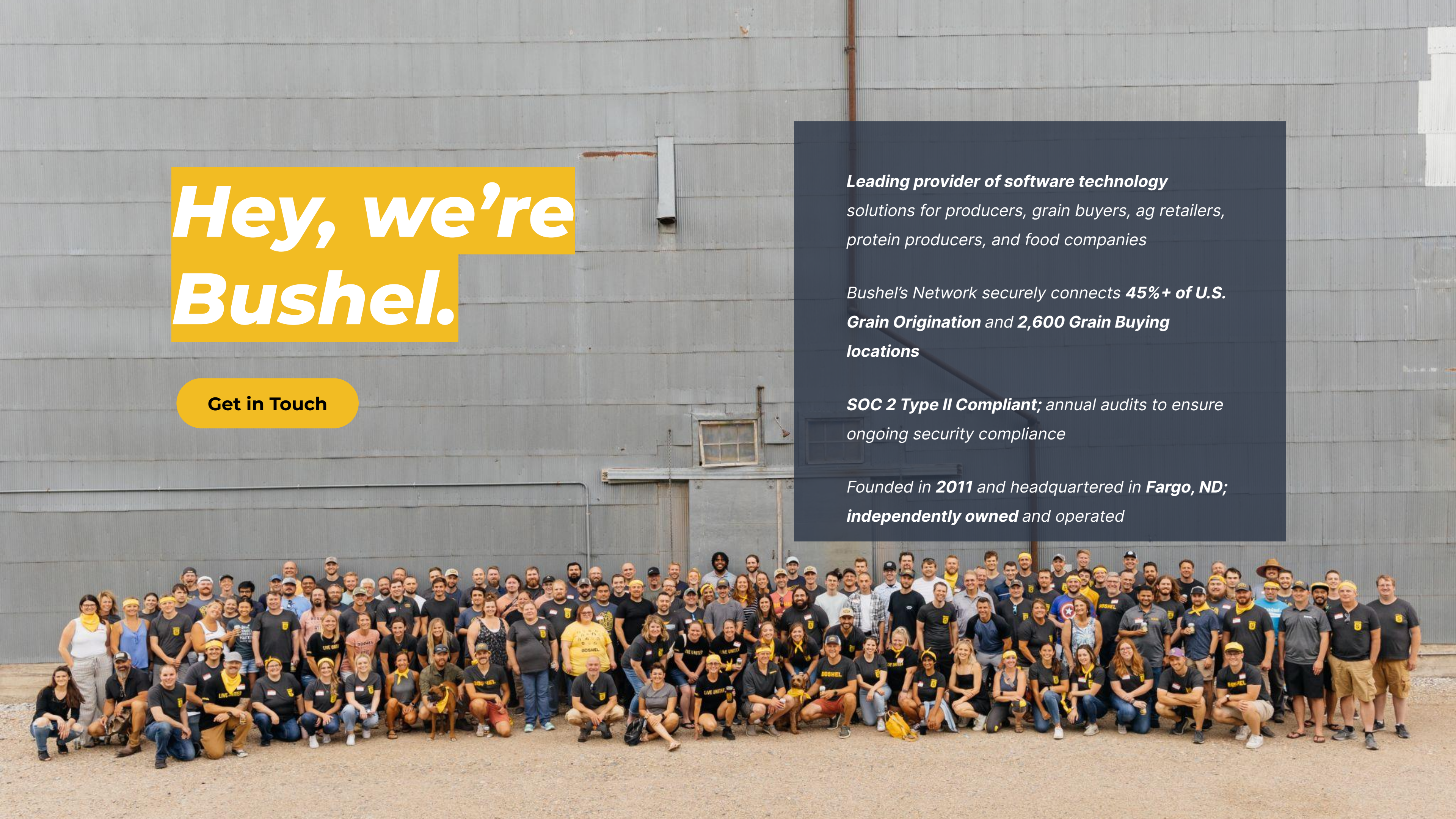
About Bushel



Hey, we're Bushel.

Get in Touch

Leading provider of software technology *solutions for producers, grain buyers, ag retailers, protein producers, and food companies*

Bushel's Network securely connects ***45%+ of U.S. Grain Origination*** *and* ***2,600 Grain Buying locations***

SOC 2 Type II Compliant; *annual audits to ensure ongoing security compliance*

Founded in ***2011*** *and headquartered in* ***Fargo, ND; independently owned*** *and operated*

Agriculture’s physical infrastructure - the network of highways, rivers, rail, on-farm grain storage, commercial grain handling and processing facilities - is the greatest advancement in the grain industry in the last century that resulted in a huge productivity increase.

But there is no comparable digital infrastructure to securely move **data, transactions, and money.**

Bushel is building the necessary digital infrastructure for the next era of agriculture value chain productivity.

Bushel’s Mission

To connect the agriculture industry through digital infrastructure.

The Power of the Bushel Network

Automatically reconcile your
commercial scale tickets and contracts

Bushel Fulfillment™

Digitize your offer &
hedge management

Bushel Trade™

Share key information and
digitize your business with
your growers

Bushel Mobile™

Bushel Wallet™

Secured digital payments between
you and your growers

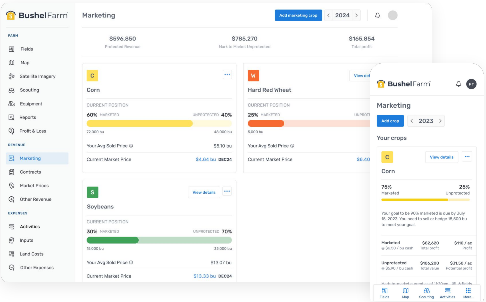
Bushel Farm™

Manage your day-to-day farm
operations with data-driven insights

Bushel reaches every facet of agriculture: from seed in the ground to cash in your bank.

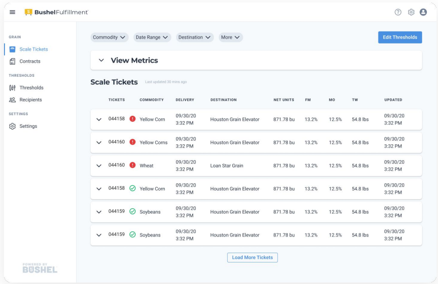
Bushel's Product Suite

Click on product logos to learn more.



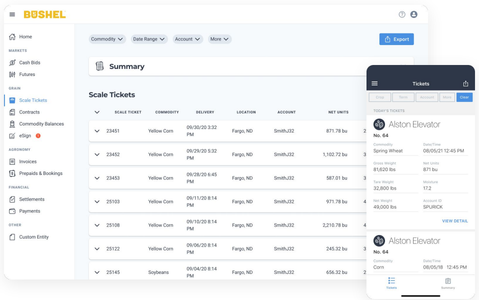
Bushel Farm™

Manage your day-to-day farm operations with data-driven insights



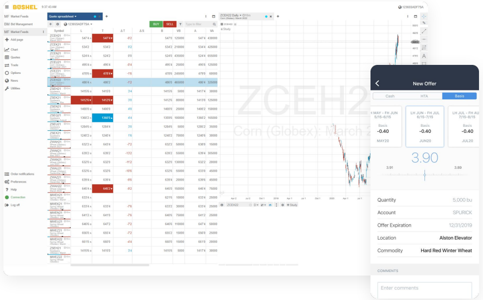
Bushel Fulfillment™

Automatically reconcile your commercial scale tickets and contracts



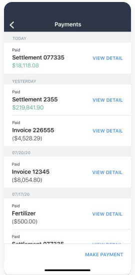
Bushel Mobile™

Share key information and digitize your business with your growers



Bushel Trade™

Digitize your offer and hedge management



Bushel Wallet™

Secured digital payments between you and your growers

HOP INTO THE BUSHEL BUDDY SEAT

– WHERE LEARNING MEETS LAUGHTER!

The Bushel Buddy Seat brings together farmers and agribusinesses to explore the challenges, opportunities, and innovations in today's agriculture landscape.

Check Out More Buddy Seat Content

Bushel BUDDY SEAT

State of the Farm
2024 Report

Executive Summary

General Takeaways

Large farms (2,000-plus acres) can account for a disproportionately larger share of the market.

Farmers under 40 years old and high-growth farmers represent future customers and markets.

There is aggressive adoption of technology by younger and growing farmers.

Price of equipment, profitability, and inflation are the top three concerns reported by surveyed farmers.

‘Increasing operational efficiencies,’ ‘improving marketing strategy,’ and ‘tracking/improving field performance’ were the highest-rated management opportunities.

Grain Marketing

Large and growing farms are more comfortable pricing production early. Large-scale farms are more likely to follow advisor's recommendations and set price targets when profits are achievable. Farmers under 40 are still dependent on cash flow for making grain marketing decisions.

35% of 2000-acre farm respondents are comfortable marketing 50% at or before planting, whereas only 25% of smaller-sized farm respondents feel the same.

Overall, these larger and growing farms use a balanced approach when it comes to marketing grain. While spot cash sale was the most prevalent strategy, nearly all grain marketing strategies (11 total were offered as a choice) are used by at least 20% of respondents.

Among respondents under the age of 60, 65% leave open orders (offers) with grain buyers, contrasted with only 45% of respondents older than 60.

The most influential grain marketing resource by far is local grain buyers with 38% of respondents saying they rely on that resource the most.

Use of Technology

Weather, accounting, and financial record-keeping are the highest-ranked activities for which farmers use a farm-related app or software. Farmers under 40 view software's value beyond just convenience - with an even split between helping them manage costs and increasing revenue.

33% of respondents are willing to submit grain offers / sell grain to grain buyers through an app or website.

Payments Trends

For the second year in a row, Bushel's State of the Farm survey asked about payment trends. This year's report shows a 12% decrease in paper check payments to farmers, with increases in payments via ACH and digital wallets. Still, more than 70% of grain settlements are being paid by paper check. The USPS continues to warn against mailing paper checks due to increased fraud.

The report shows a steady rise in the use of digital payment processors over the last year; last year 61% of respondents selected 'none of the above' when asked if they use various popular digital payment platforms. This year's showed 24%.

Sustainability Perceptions

More farmers said they participated in carbon programs than in the previous year. The 2024 report shows a nearly 10% increase from last year's survey responses asking about carbon program participation. Younger farmers are much more likely to participate in these types of programs: 50% of the 18-40 age group reported participating in some kind of payment-based carbon program.

Nutrient management is the most widely adopted practice by farms (57%) and more than 50% of larger farms report using no-till on some or all of their fields.

Cover crops are more popular with younger farmers with a little over 40% of farmers ages 18-40 reporting that they use cover crops as a farming practice.

Doing Business with Farmers

If bids and hauling distance are similar among competing grain buyers, farmers under 40 said ‘fastest payments’ and ‘marketing programs’ are the primary reasons they would sell to one grain company over another.

Farmers under 40 are showing less emphasis on relationships with staff with only 12% responding as a key factor in selling to a grain company, compared to 21% overall.

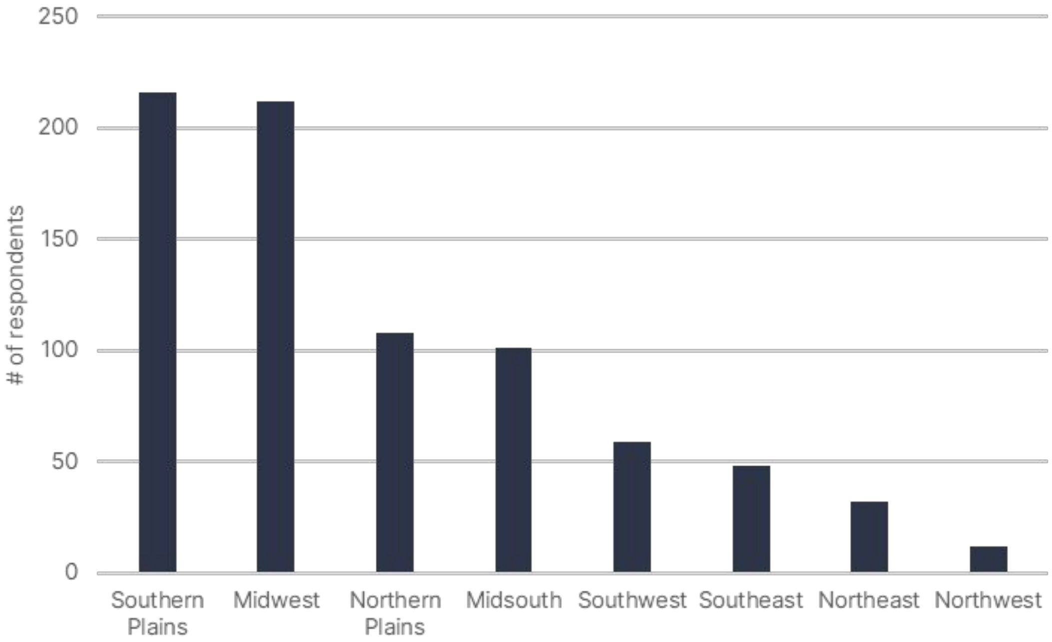
When communicating with grain buyers, farmers prefer text messages. Telephone and websites have the largest gap between actual and preferred communication channels (-11 percentage points).

The challenge - or opportunity - for agribusinesses is to understand which concerns they can help farmers manage. For example, while commodity prices and production costs are largely out of a farmer’s control (see page 32), knowing when the market is offering a profit and having tools to swiftly execute on profit-generating scenarios are potential key opportunities.

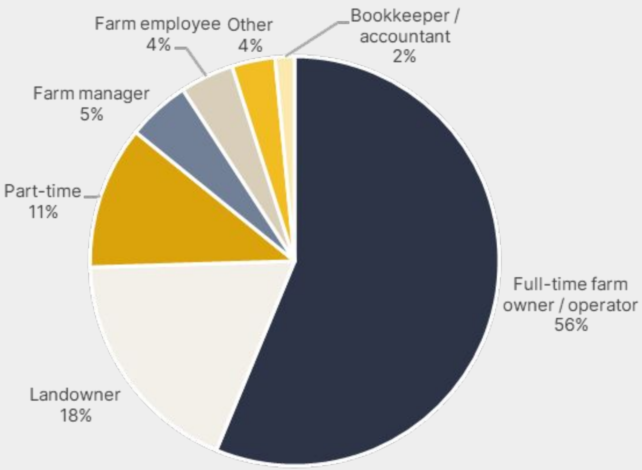
Introduction

Respondent's Location and Role

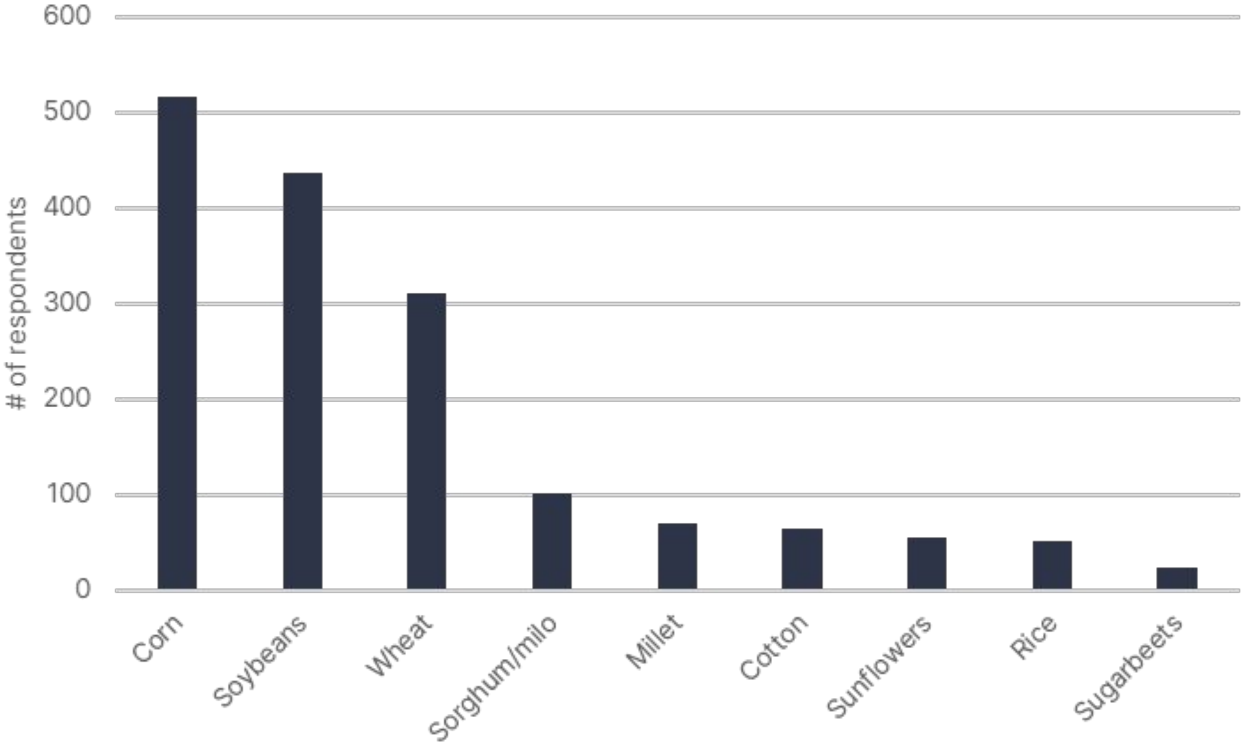
Location of Respondent



Q: What is your primary relationship to farming?



Crops Featured



By Age

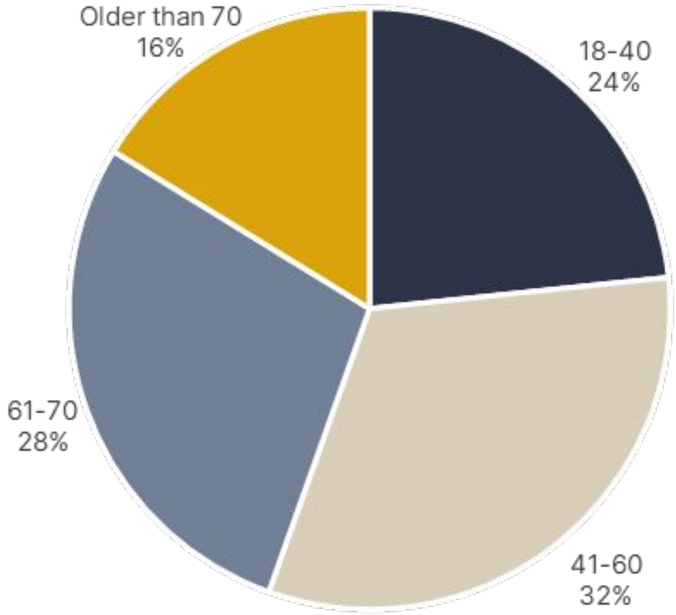
Respondents were classified into four different age divisions.

- 18-40 yo 24%
- 41-60 yo 32%
- 61-70 yo 28%
- 70+ yo 16%

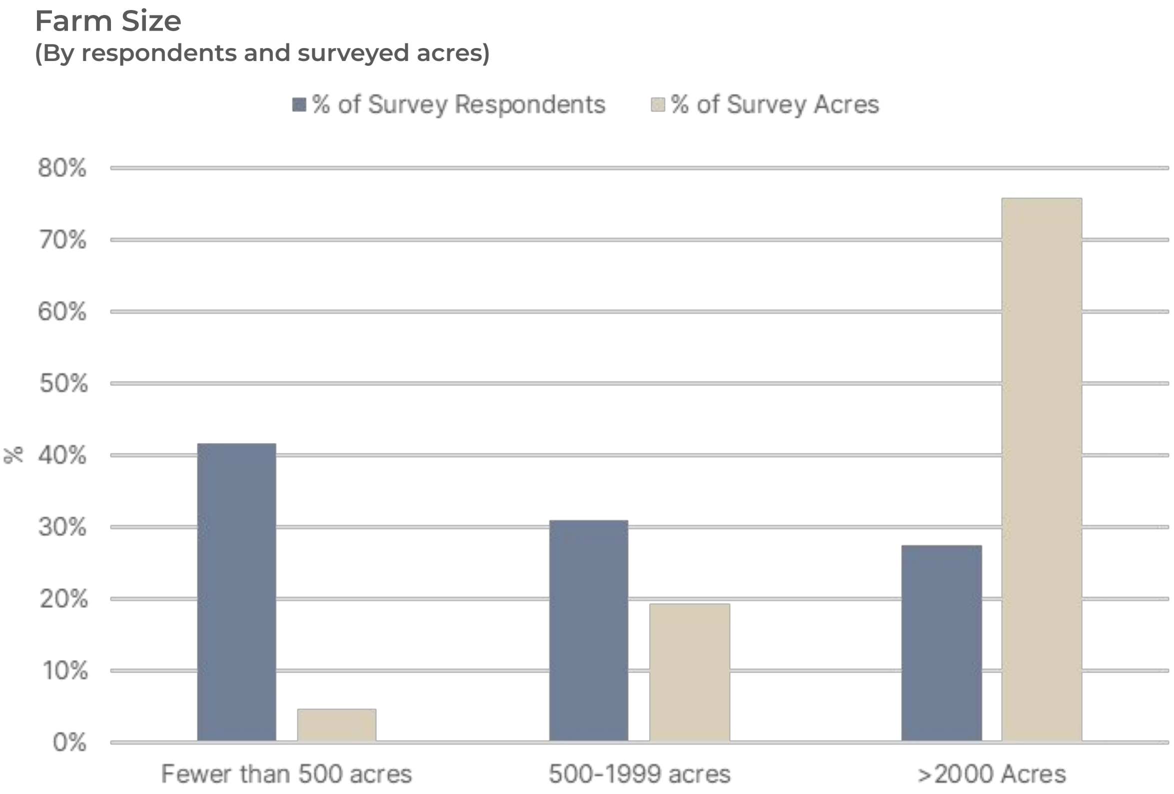
While the segments are similarly sized, the age ranges vary.

- 44%: Older than 61 years.
- 56%: 60 years or younger.

Survey Respondents
(By age)



Respondents vs. Acres



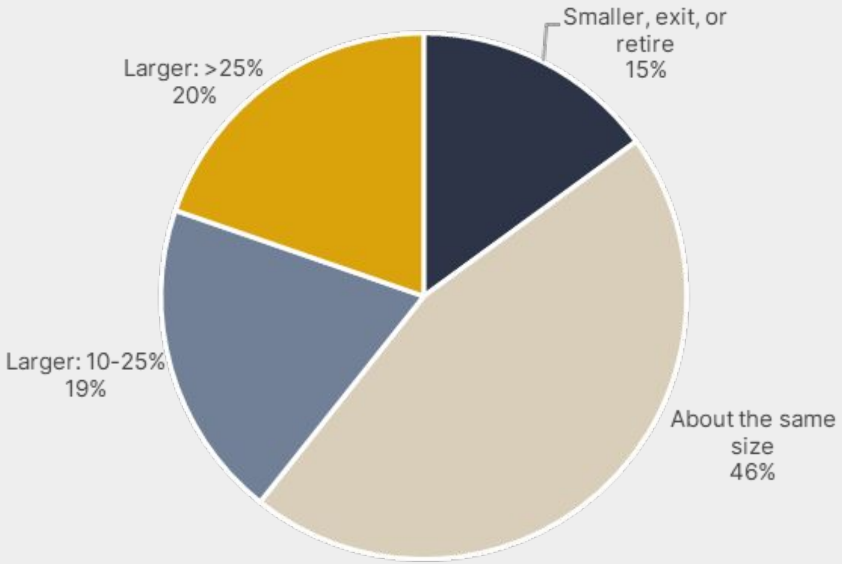
- The largest producers (>2,000 acres) represented 27% of respondents, but 76% of acres.
- It is important to consider these size segments when creating, testing, and launching offerings.
- 2022 Census of Ag:

  >2,000 acres = 4.3% of operations, 61% of acres

Five-Year Farm Growth Plans

- 39% have aggressive growth plans for their farm, broken into two different growth segments:
  - 19% plan to grow their farm by 10-25%.
  - 20% plan to grow their farm by more than 25%
- 46% plan to keep their farm about the same size over the next five years.
- 15% plan to retire, exit, or reduce the size of their farm over the next five years.

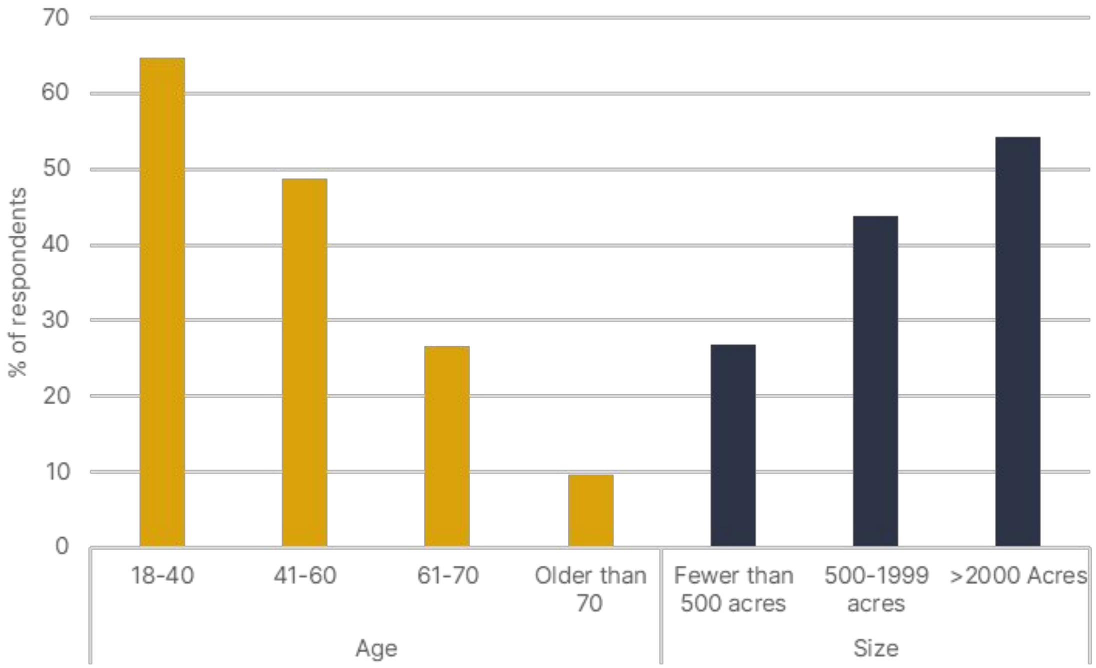
5-Year Farm Growth Plans



Five-Year Farm Growth Plans

- Both younger and larger producers have aggressive growth plans.
- Those 18-40 represent a small portion of today's market, but will account for a large share of future business activity.

5-Year Farm Growth Plans - % of Farms with Increased Growth Plans
(By age and farm size)



Introduction | *Recap*

- Survey focused on commercial farm operations.
  - By design, survey respondent farms are larger than USDA average.
- Each age segment has roughly the same share of total respondents, but the range of ages varies.
  - 44% are >61 years old.
  - 56% are 60 or younger.
- Respondents vs Acres: Not every respondent has the same market impact.
- Behaviors and trends of young and high-growth farms will impact the future marketplace.

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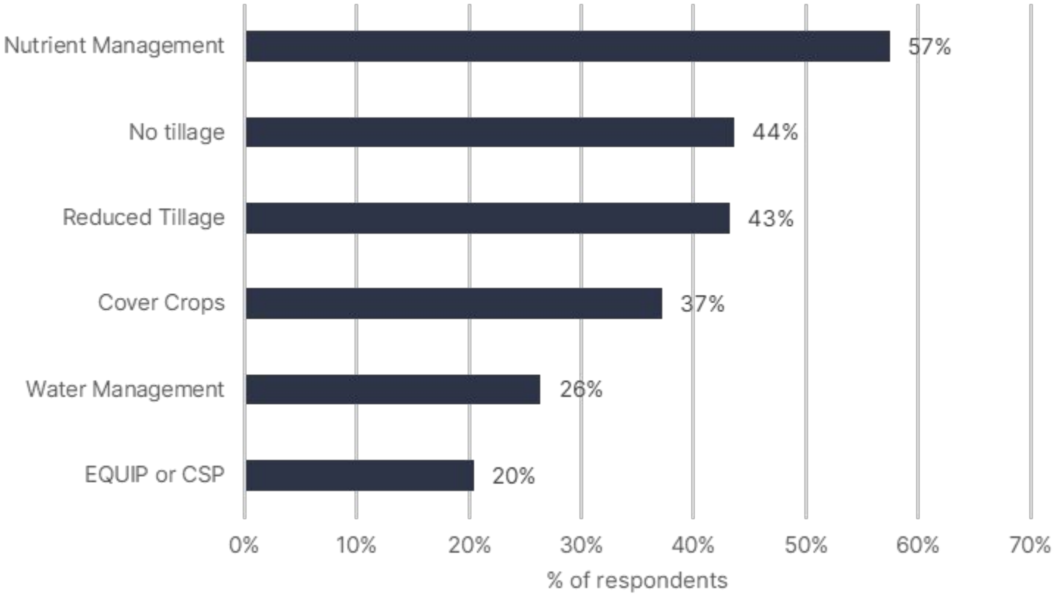
Future of the Farming Operation

Key Farming Practices Utilized

- Nutrient management was the most widely adopted practice by farms.
- Reduced and no tillage also popular.
- Only 20% utilizing gov't programs (EQUIP/CSP).

Q: Which of the following practices do you use?

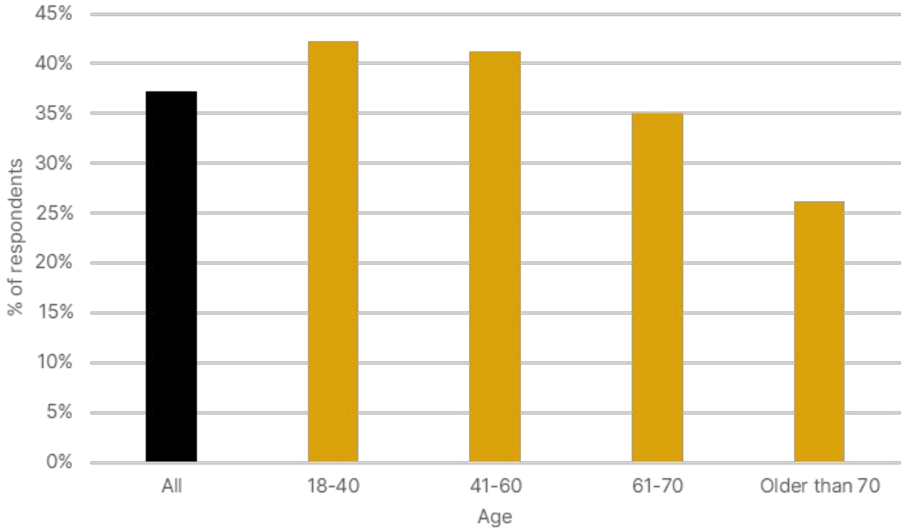


Nutrient Management: Fertilizer recommendations based on annual soil tests and yield goals.

Water Management/Stewardship: Setbacks, buffer strips, precision irrigation, etc.

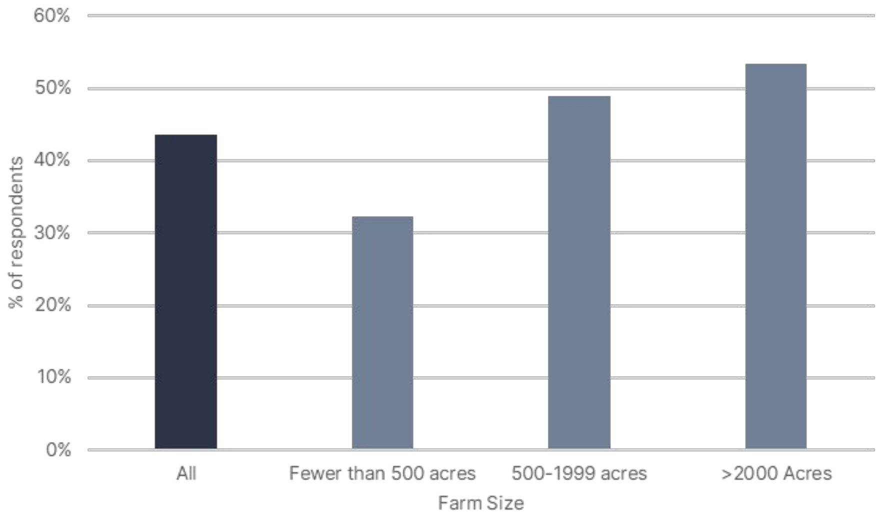
Farming Practices: Different Adoption Rates

Use of Cover Crops
(By age)



Cover crops are more popular among younger producers.

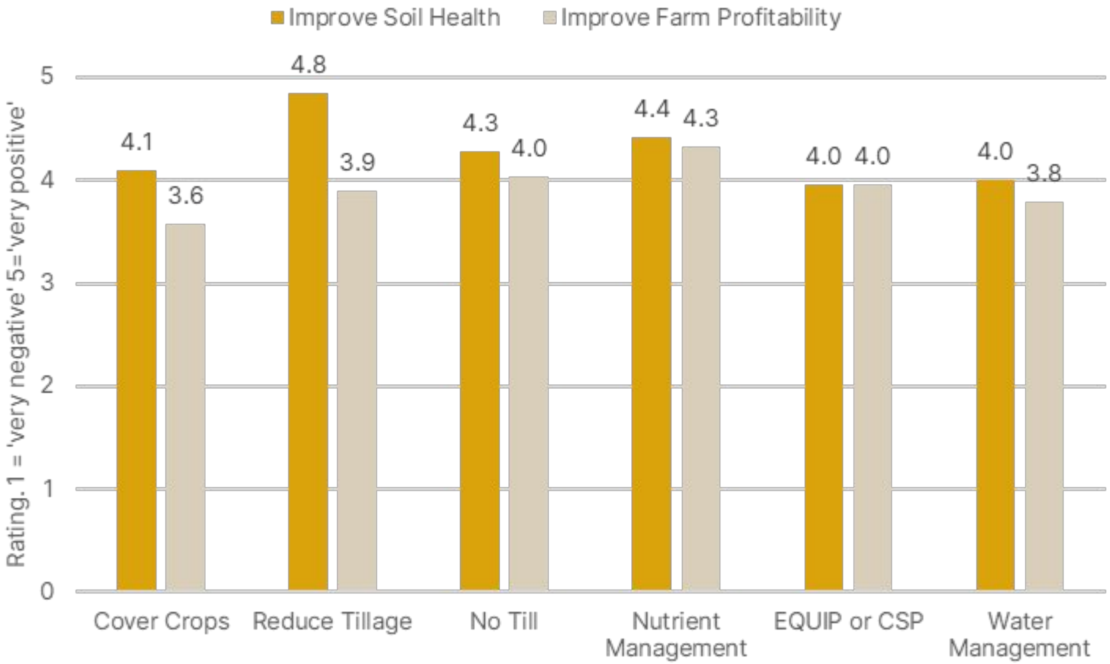
Use of No Tillage
(By size)



No-tillage adoption greater for larger operations, suggesting the practice scales.

Farming Practices: Benefits

Q: Rate the soil and farm profitability benefits.



Soil health benefits tended to score higher than farm profitability.

- Especially for cover crops and reduced tillage.

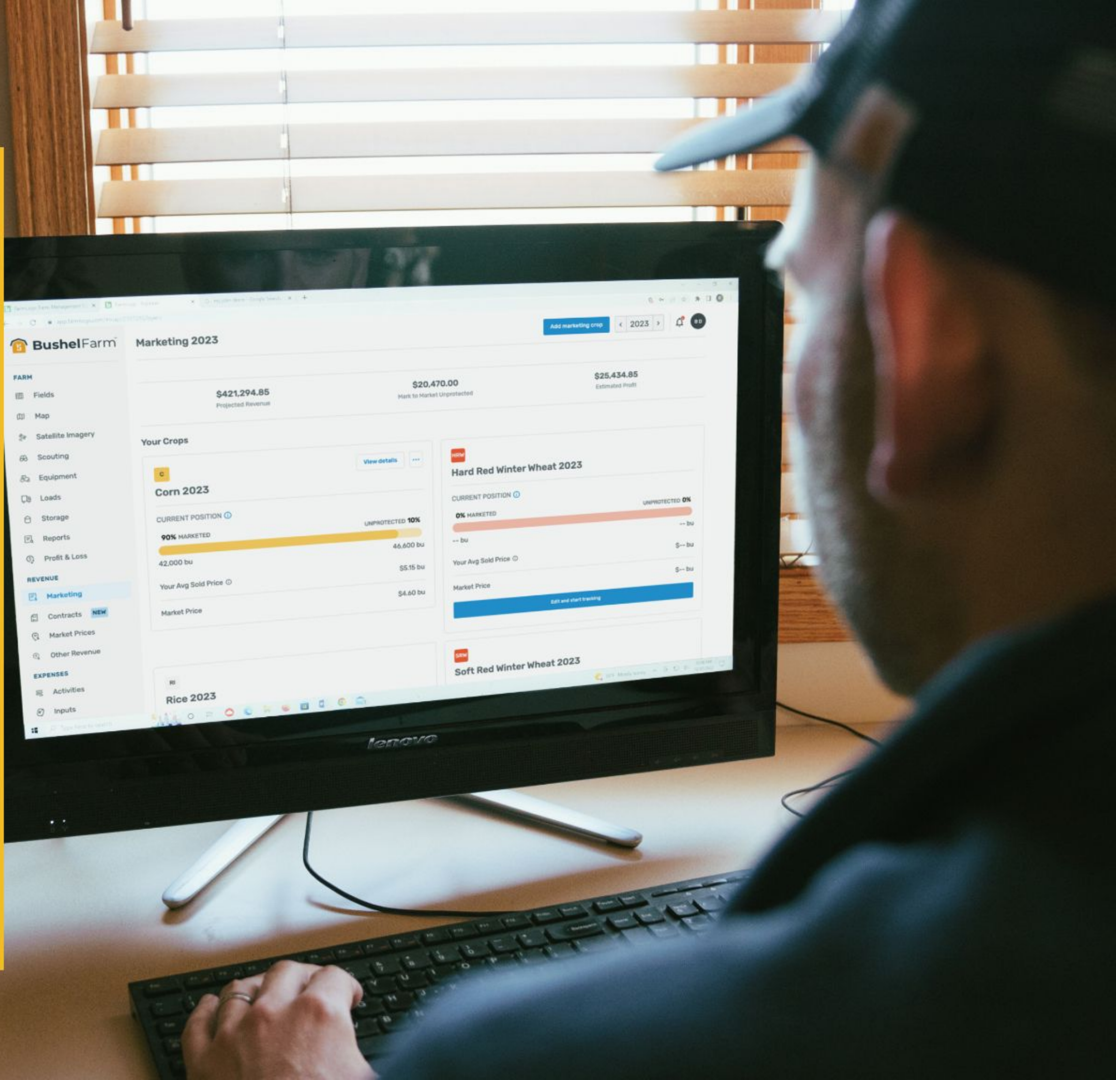
Reduced Tillage rated highest for soil health benefits.

Nutrient Management rated highest for profitability.

"A tool like Bushel Farm is another opportunity to better inform my decision-making and increase the profitability of my farm."

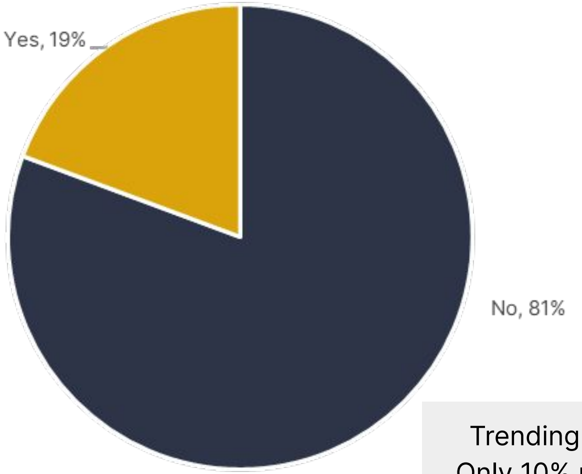
TIM B., MICHIGAN FARMER

Learn More



Carbon Program Adoption is Slow...

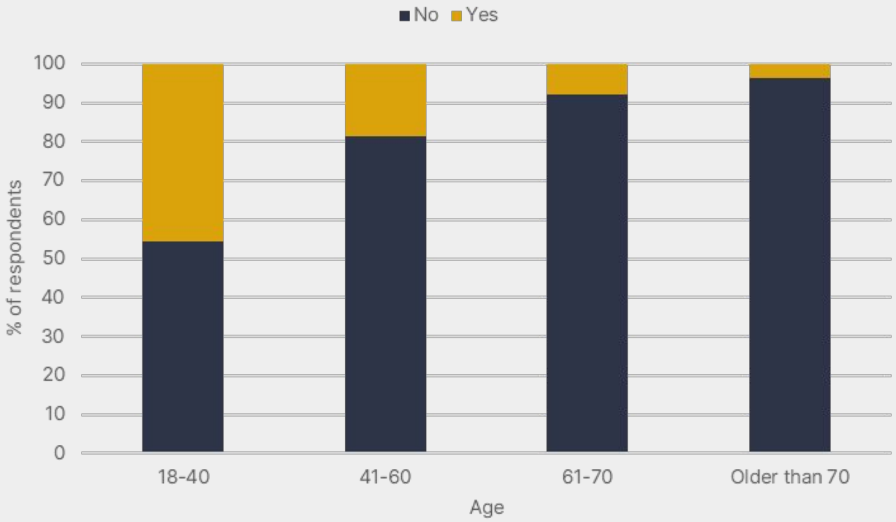
Q: Do you participate in any payment-based carbon programs?



Trending higher: Only 10% reported using a carbon program in 2023.

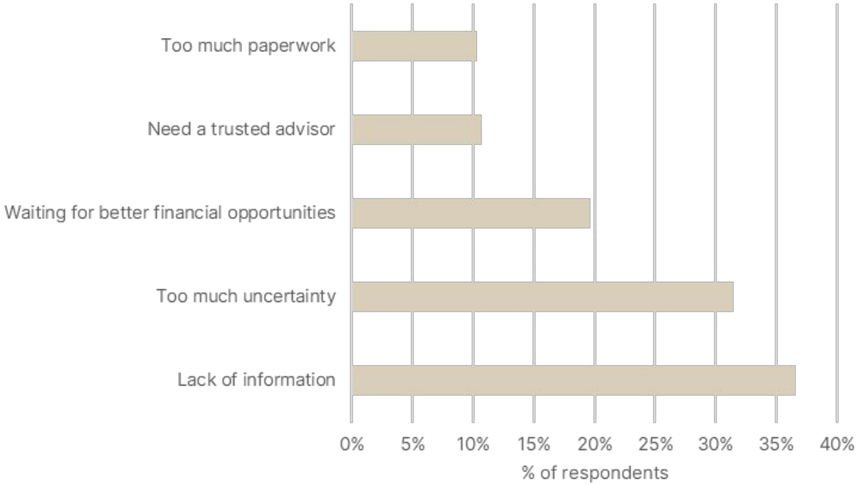
... but young producers are much more likely to participate.

Q: Do you participate in any payment-based carbon programs?
(By age)

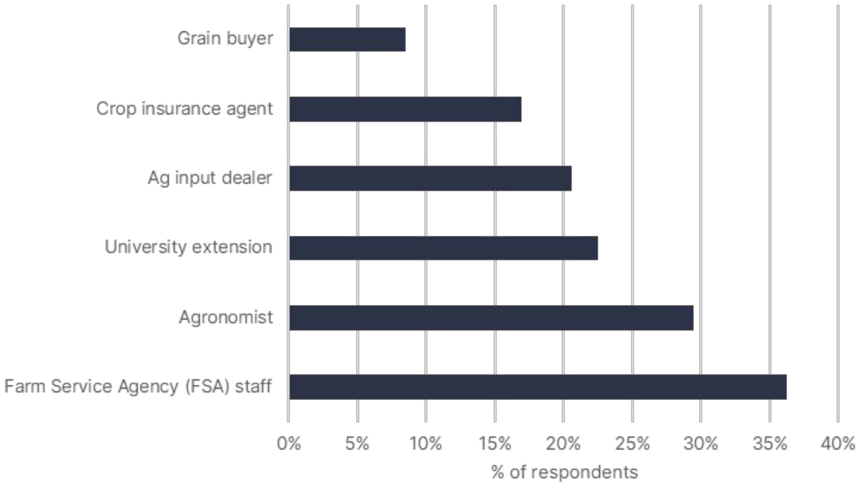


Moving the Needle on Carbon Adoption

Q: What are the barriers for *Not Participating* in a carbon program?



Q: Where do you gather information about sustainability programs?



<u>Uncertainty</u> and <u>lack of information</u> were key barriers for more than one-third of those *not* participating in a carbon program.

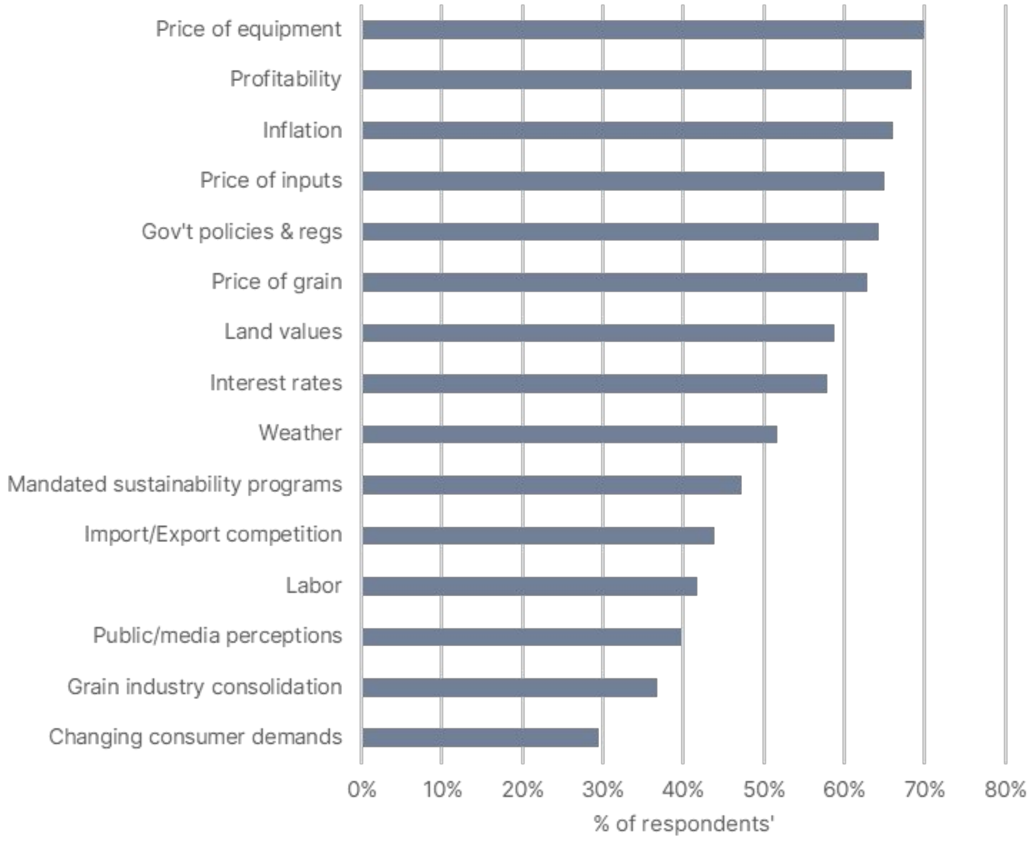
Top Concerns

Top Concerns by Age Category:

- 18-40:
  - Profitability
  - Price of equipment
  - Inflation
- 41-60:
  - Profitability
  - Price of equipment
  - Price of inputs
- 61-70:
  - Price of equipment
  - Inflation
  - Gov't policy & regulations
- Older than 70:
  - Price of grain
  - Weather
  - Price of equipment

Q: How concerned are you about the following?

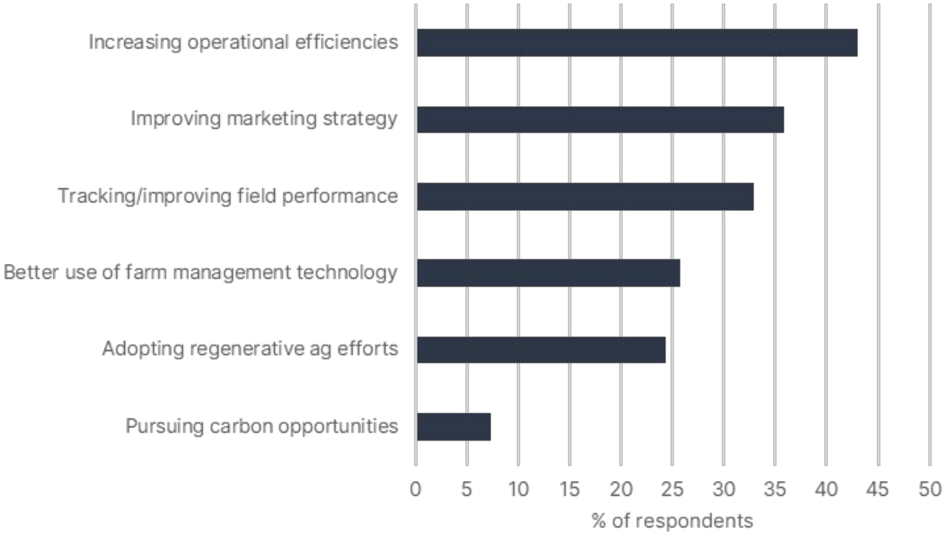
(% rating 'very concerning')



Management Opportunities: 'Top Priority'

- 'Operational efficiencies,' 'marketing strategies,' and 'field performance' were the highest rated management opportunities.
- None of the opportunities were overwhelmingly rated as a 'top priority.'
- Carbon and regenerative ag efforts were among the lowest rated opportunities.

Q: How would you rate the following management opportunities?
(% rating 'top priority')

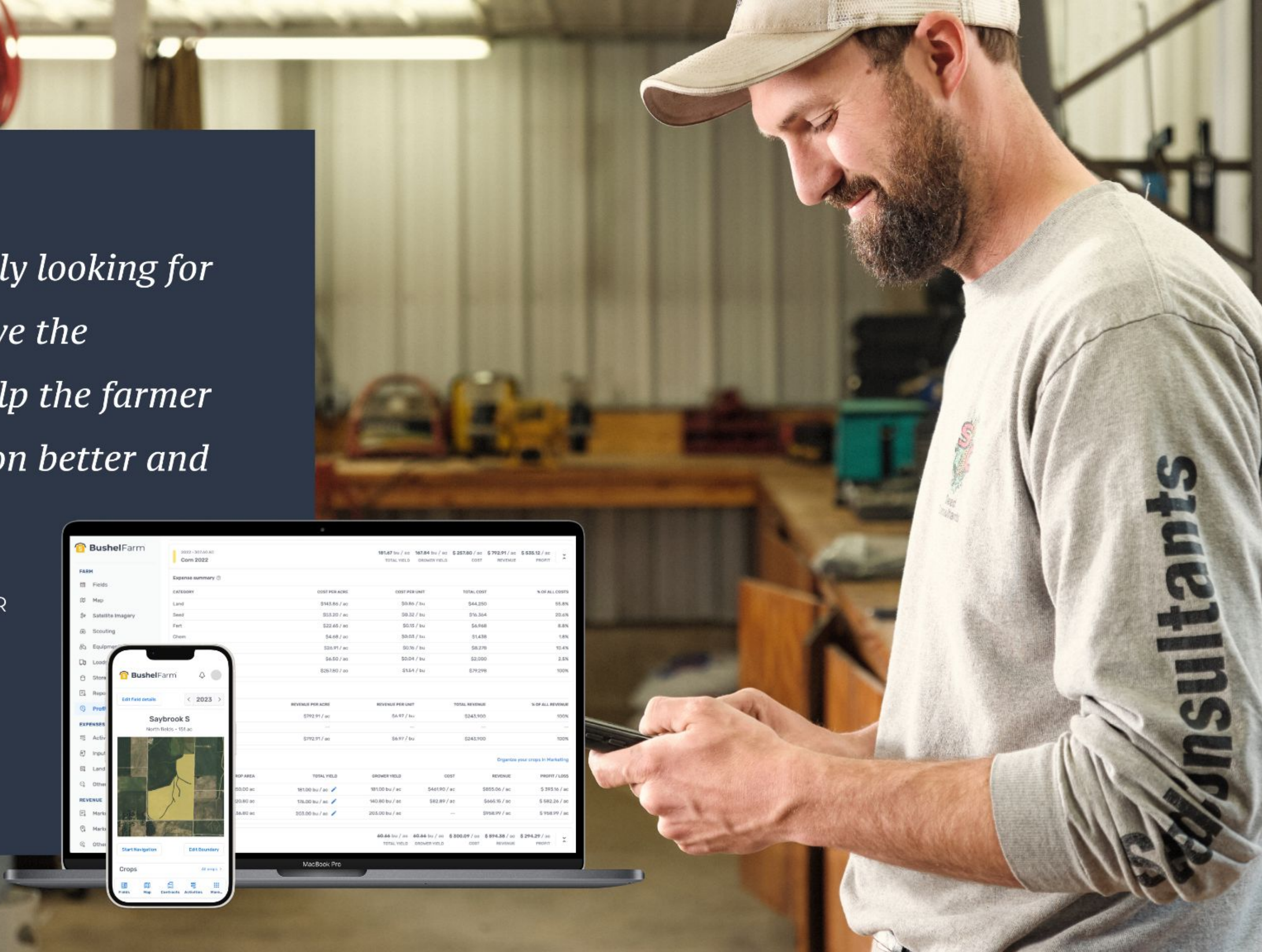


Adopting Regenerative Ag Efforts: No-till, Cover crops, Crop diversity for soil health
Carbon Opportunities: Pursuing carbon sequestration and carbon market opportunities

“They are constantly looking for new ways to improve the program, and to help the farmer make their operation better and more profitable.”

DENNY T., OHIO FARMER

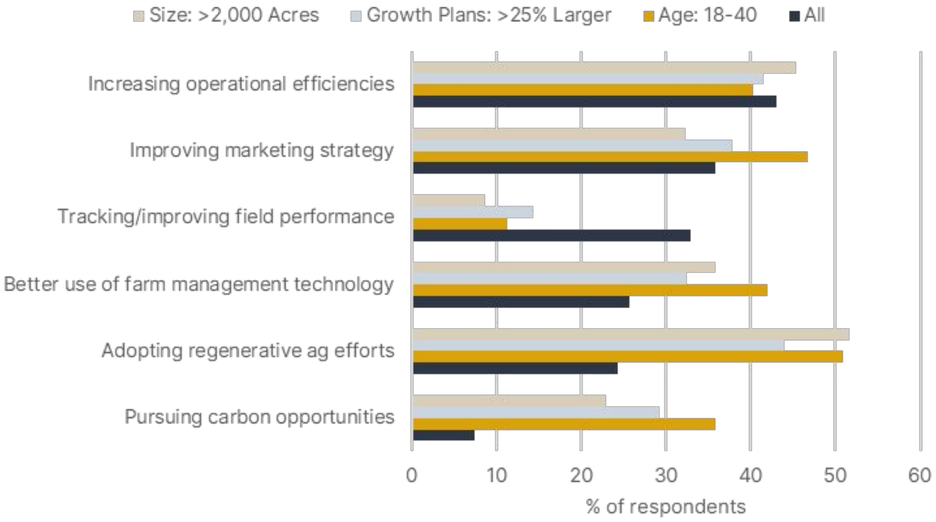
Learn More



Management Opportunities: Demographic Differences

Q: How would you rate the following management opportunities?

(% rating as ‘top priority’ by select demographics)



Adopting Regenerative Ag Efforts: No-till, Cover crops, Crop diversity for soil health

Carbon Opportunities: Pursuing carbon sequestration and carbon market opportunities

<u>Young producers (18-40):</u>

- More emphasis on field-level performance.
- More emphasis on carbon and regenerative ag.
- Better use of farm management technology.

<u>Large-scale producers (>2,000 acres):</u>

- High ratings on marketing strategies and operational efficiencies.

<u>Growing producers (>25% larger growth plans):</u>

- While still low (14%), twice as likely to rate carbon opportunities as a ‘top priority.’

Future of the Farming Operation | *Recap*

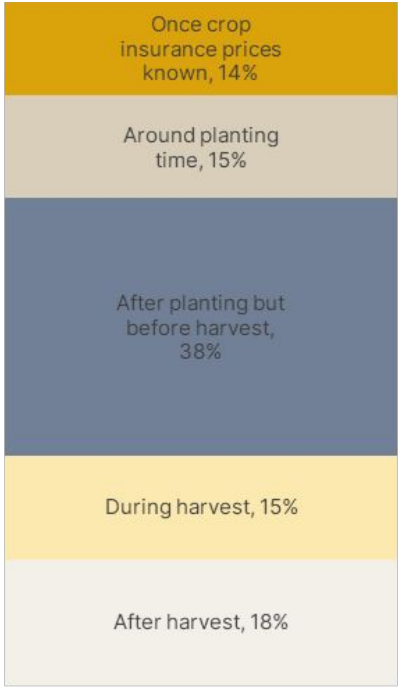
- Adoption rate and perceived benefits of farming practices can vary widely.
  - Younger producers are more likely to participate in carbon programs.
- Producer concern = agribusiness opportunity?
  - Producer concerns about profitability and grain prices creates additional value for management and marketing tools.
- Aligning opportunities.
  - Operational efficiencies, marketing strategies, and tracking field-level performance are the highest rated opportunities. Technology-driven tools can help.

Marketing Decisions

Timing of Grain Sales

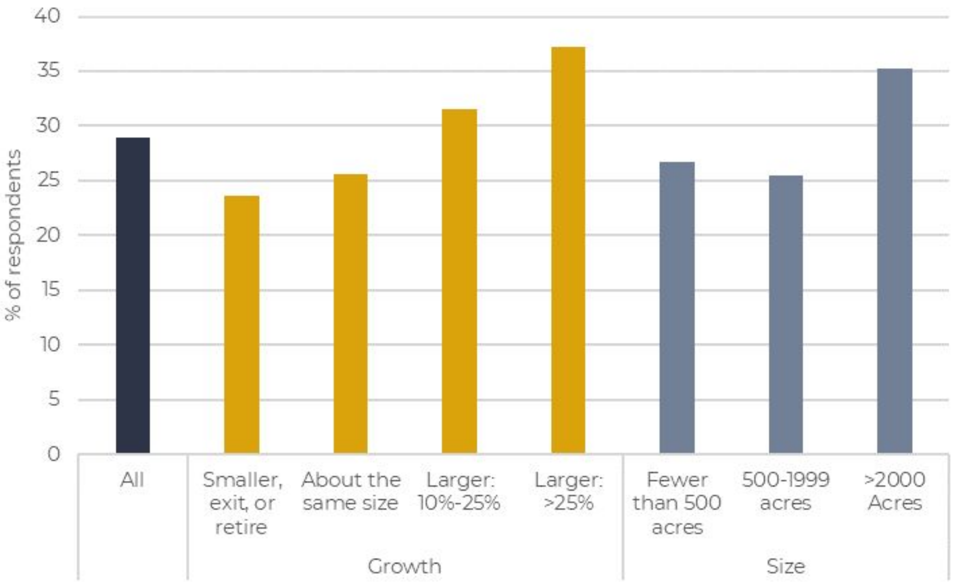
Q: When are you comfortable pricing >50% of anticipated production?

All respondents



Respondents comfortable marketing 50% at or before planting

(select demographics)

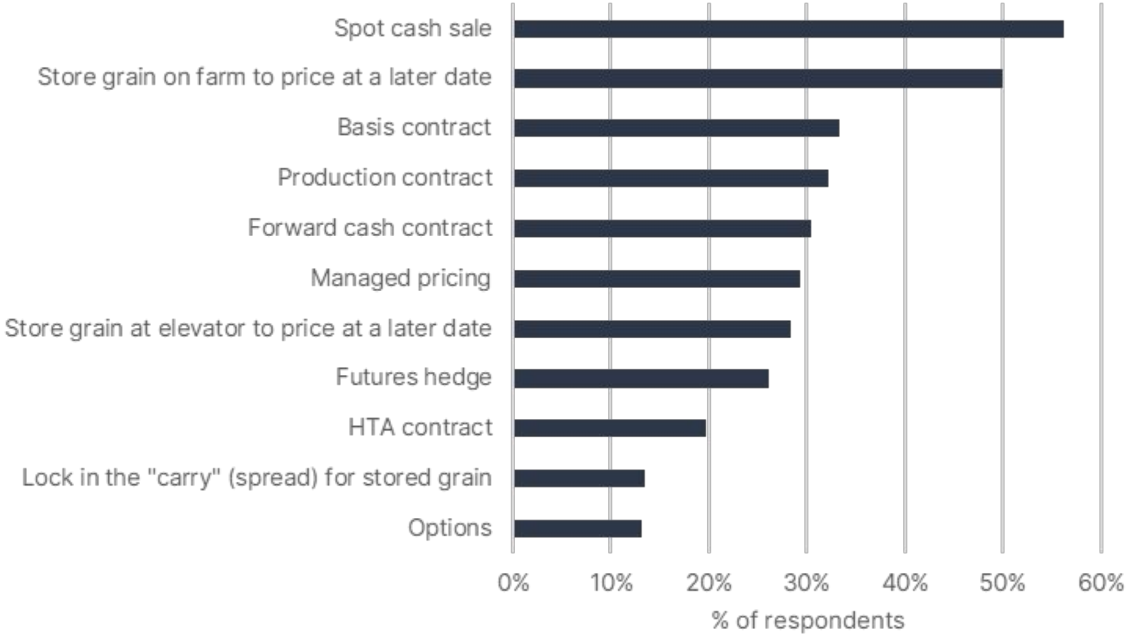


Larger and Growing Farms More Comfortable Pricing Production Early

Marketing Practices

- Spot cash sales the most common (56%).
- When storing grain to price later, producers were more likely to store grain on farm (50%) than at the elevator (28%).
- Hedging via futures (26%) and options (13%) have low utilization.

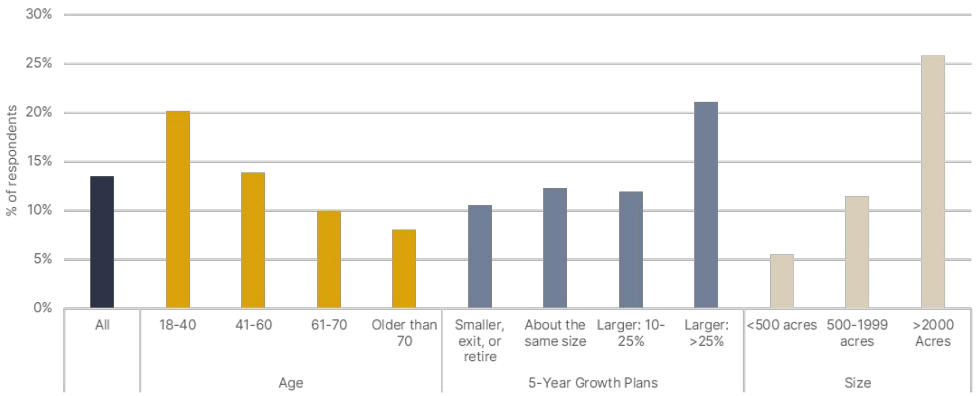
Q: Which grain marketing practices do you use?



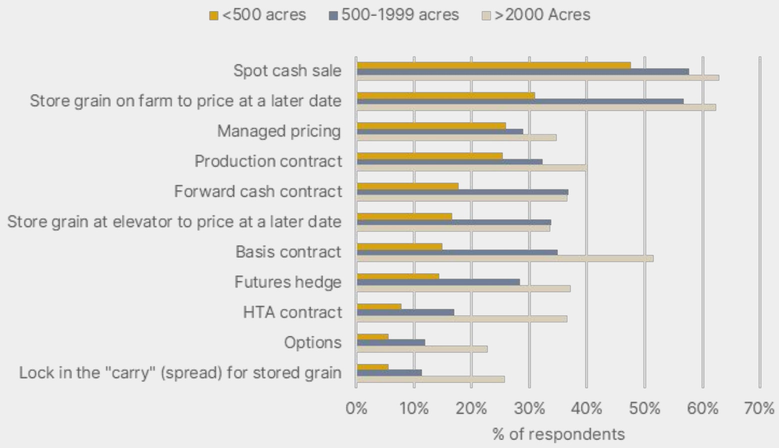
Managed pricing: Elevator pricing program, i.e., moving average

Usage of some marketing practices varies by segment

Q: Do you lock in the "carry" (spread) for stored grain?



Q: Which grain marketing practices do you use? (By size)



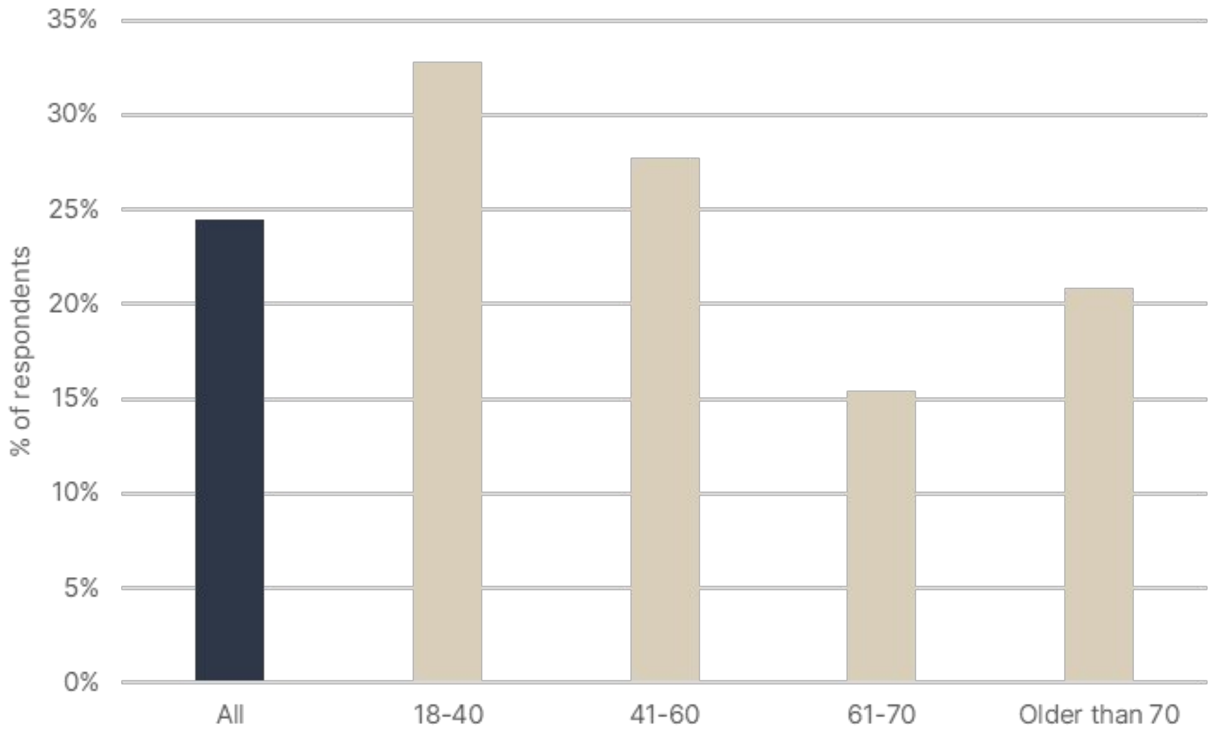
Larger operations are more likely to use almost every practice.

Strategies

A strategy that most would like to avoid - pricing when cash flow is needed - is more likely to be used by young producers because...

...young producers are more likely to be impacted by cash flow needs.

Q: Grain marketing strategies that you rely on: “Price when I need cash flow.”
(By age)

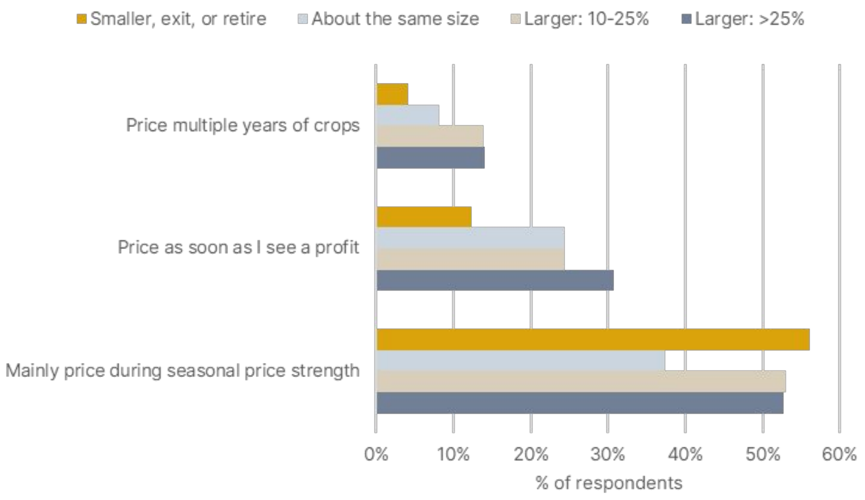


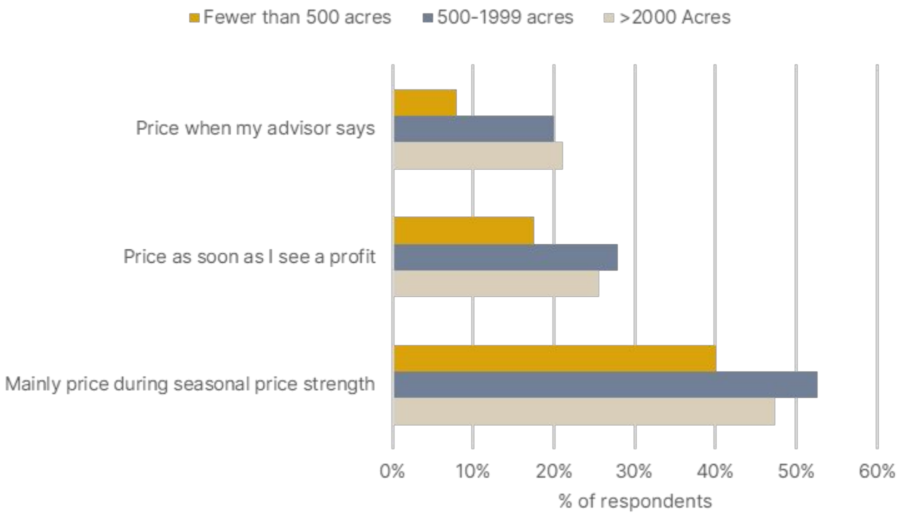
Strategies

High-growth producers more likely to:
- Price multiple crop years
- Price when profits are achievable

Large-scale producers more likely to:
- Follow advisor's recommendation
- Price when profits are achievable

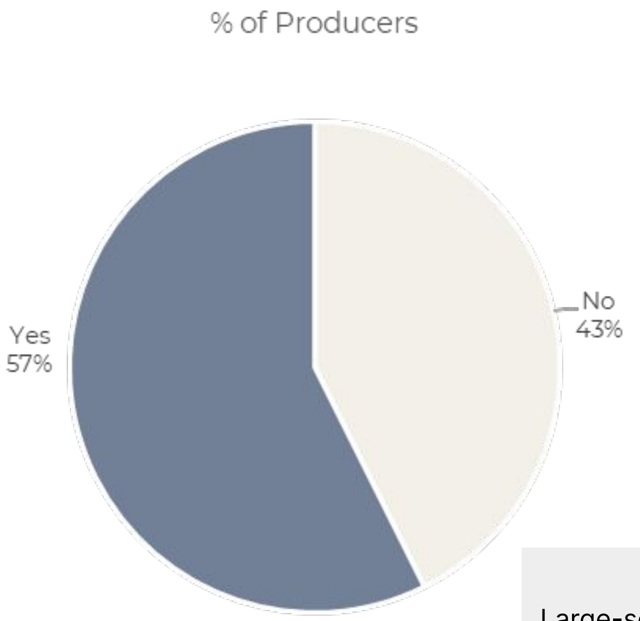
Q: Grain marketing strategies that you rely on:

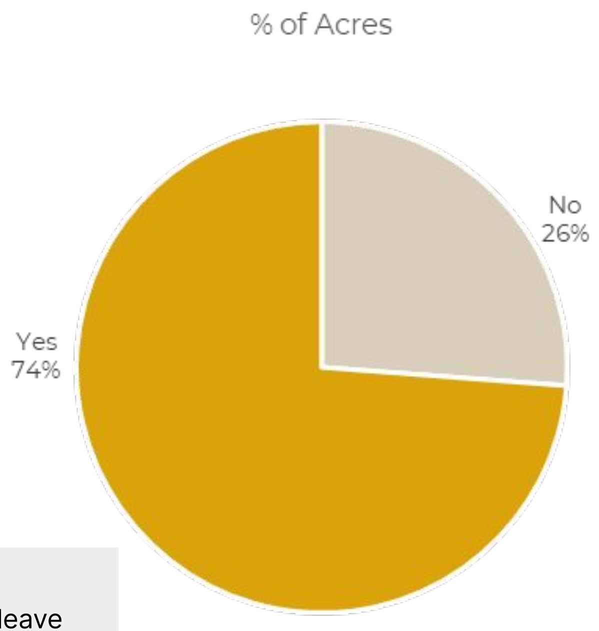




Leaving Offers with Grain Buyers

Q: Do you leave open grain orders with buyers?

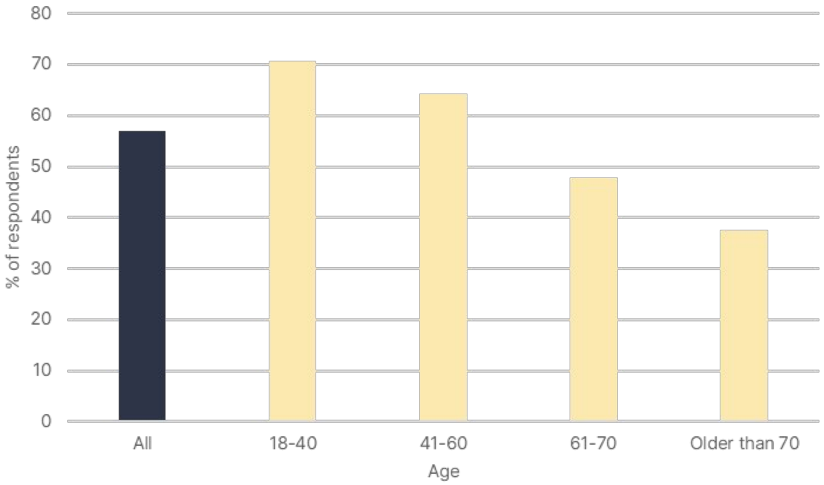




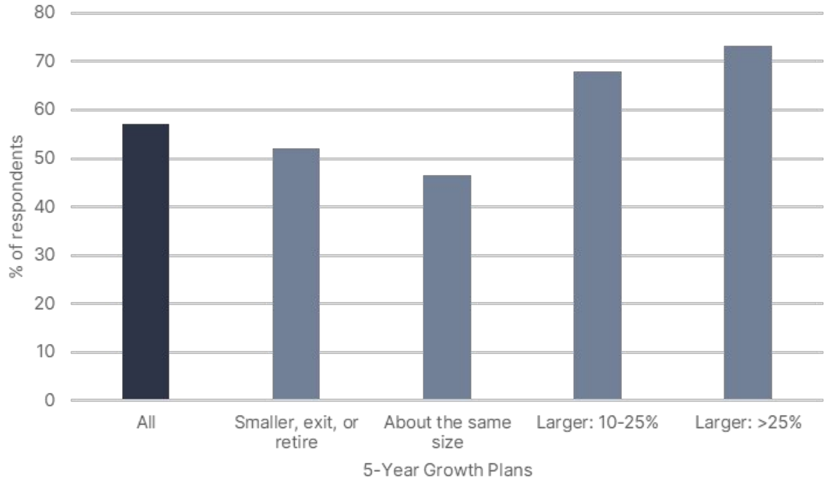
Producers or Acres?
Large-scale producers more likely to leave open grain offers with buyers, potentially skewing the actual popularity of the strategy.

Young & Growing Farms More Likely to Leave Open Grain Orders (Offers)

Q: Do you leave open grain orders with buyers?
('Yes' Responses; By age)



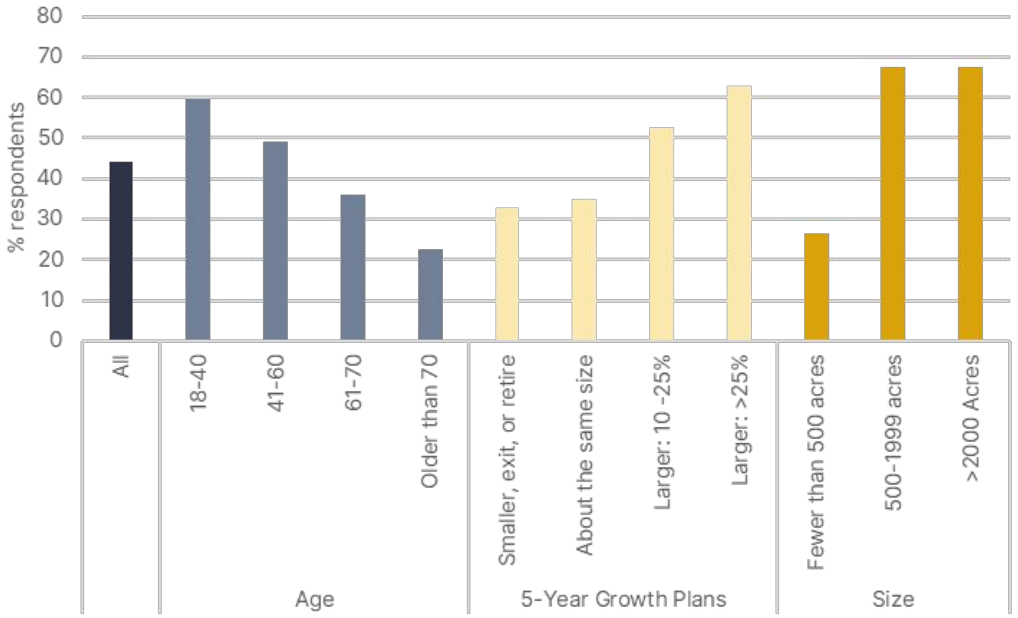
Q: Do you leave open grain orders with buyers?
('Yes' Responses; By growth)



Selling Grain to Multiple Companies

- 44% of respondents sold grain to more than three different companies.
  - However, those 44% accounted for large share of market acres (65%).
- Activity varied by age, farm growth plans, and farm size.

Q: How many grain companies do you sell to? 3 or more.



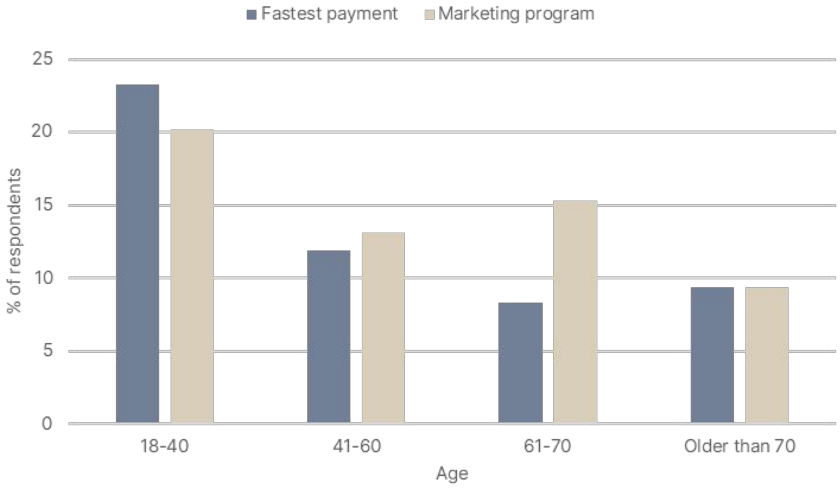
“We’ve seen a wonderful return on our investment. It really helps out with our communication to the farmers. They can see all of their contracts, they can see their settlements, they can see their tickets.”

FLETCHER SUNDERMAN,
MERCHANDISER, AGRILAND FS

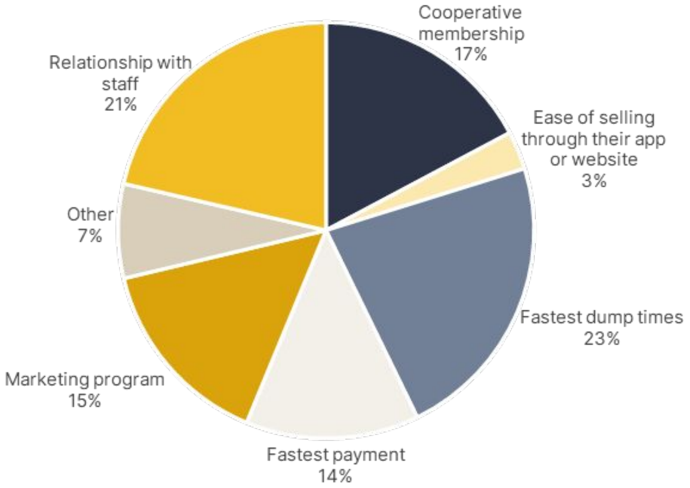
Learn More

After price & hauling, no dominant competitive strategy

‘Fast payments’ & ‘marketing programs’ selected as primary reason for selling to a grain company.
(By age)



Q: After bids and distance, primary reason for selling to a grain company?

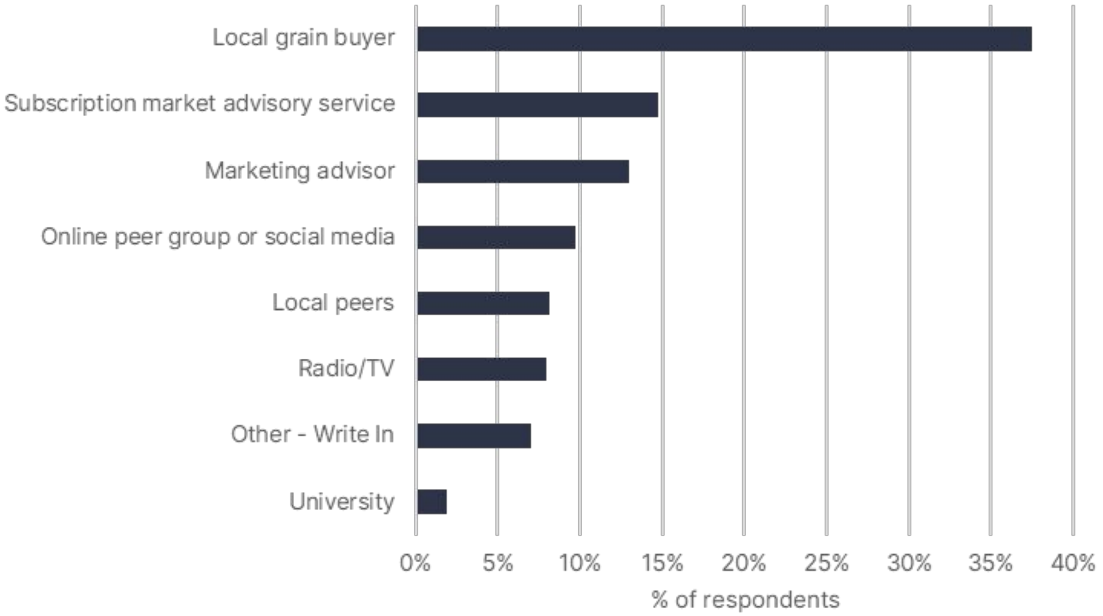


<u>Young producers</u>: More emphasis on fast payment and programs.

- Trade-off: Less emphasis on relationships (12% for 18-40yo).

Local buyers dominate as marketing resource

Q: Which grain market resources do you rely on the most?



Only 13% of respondents selected "marketing advisor" as the most relied upon resource.

However, 'marketing advisors' accounted for 24% of surveyed acres.

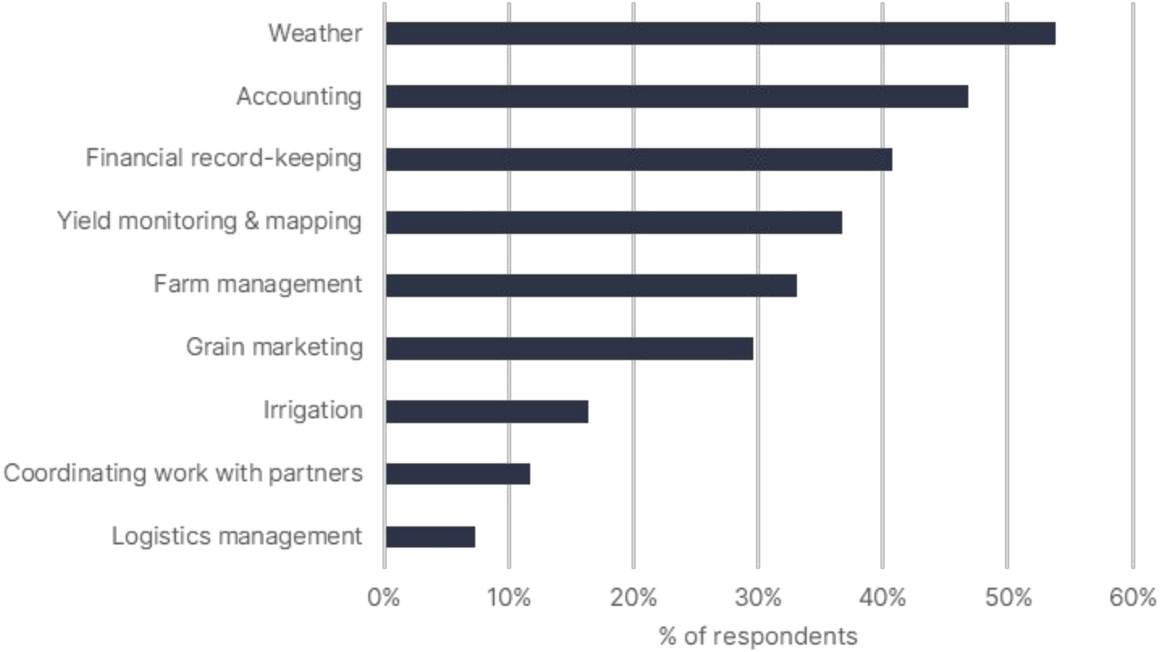
Marketing Decisions *Recap*

- After bids and hauling are accounted for, no dominant competitive strategy.
  - Grain buyers must be competent on many fronts.
- Some competitive strategies are especially important for key demographics.
  - Young producers: More emphasis on timely payments & marketing programs.
- Local grain buyer = dominant grain market resource.
  - Some will leverage this to create additional value and loyalty.
- Young, high-growth, and large-scale producers have more aggressive marketing plans.
  - Example: Pricing grain earlier in season, using marketing services, leaving open orders/offers, selling to several buyers.

Use of Technology

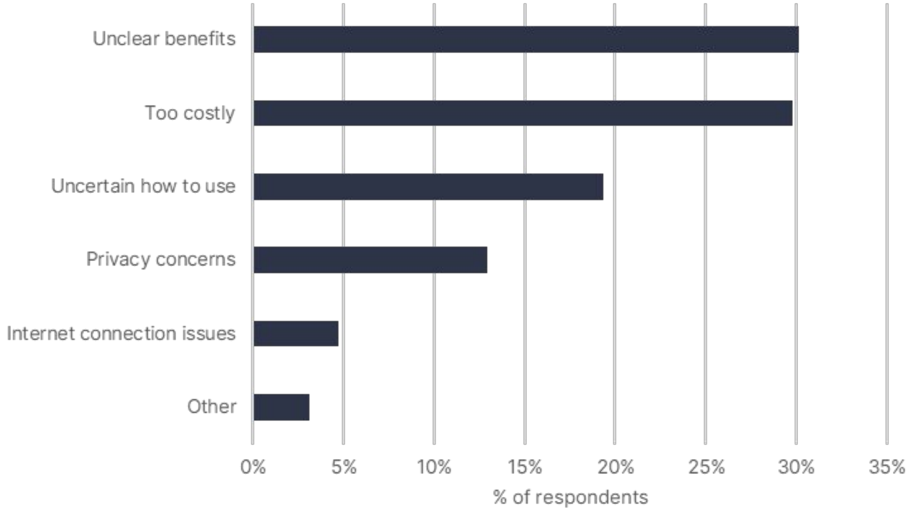
Not All Apps/Software Are Equal

Q: I use an app or software for the following activities...



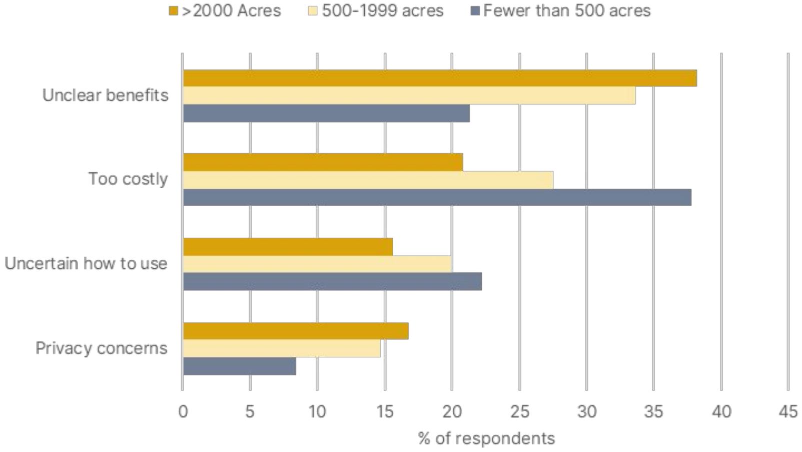
Adoption Barriers: Too Costly and Unclear Benefits

Q: Common reason for *not* adopting a potential farm management app or software?



- Large-scale farms: More emphasis on ‘unclear benefits’ & ‘privacy concerns.’
- Small-scale farms: Cost and usability a more significant concern.

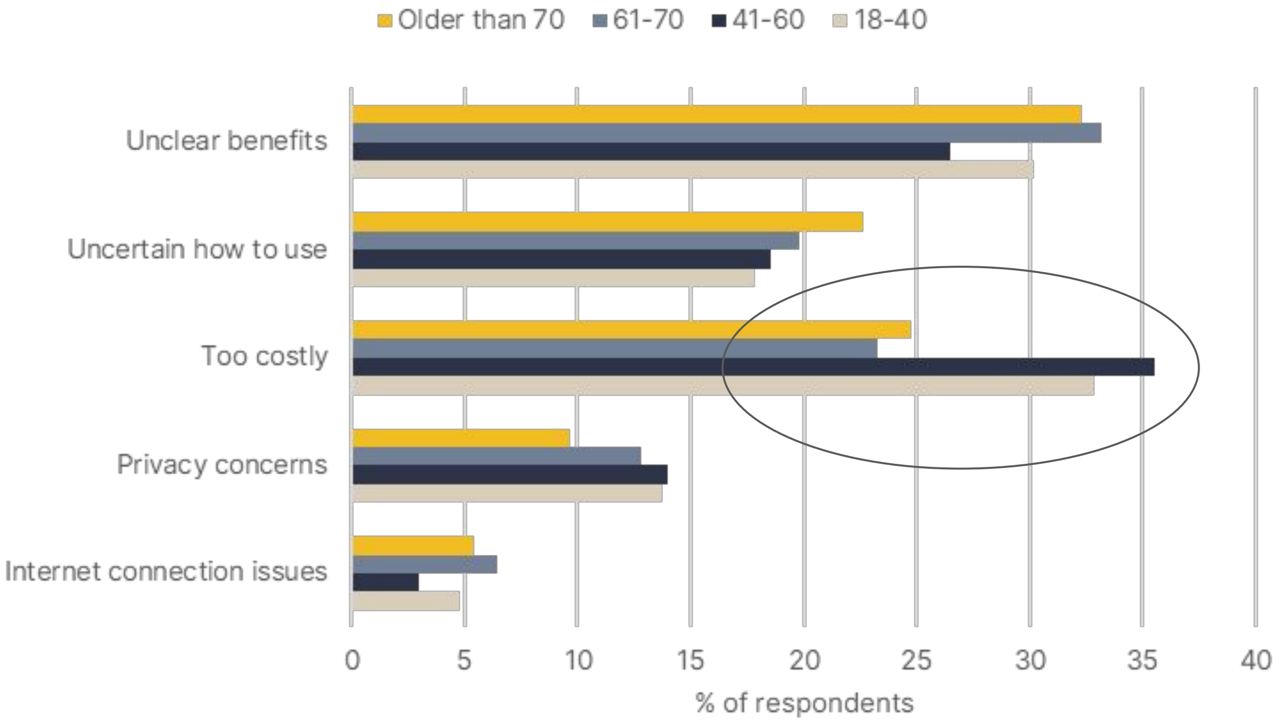
Q: Common reason for *not* adopting a potential farm management app or software?
(By size)



“Too costly” a greater barrier for young producers

An opportunity for agribusinesses to create value and loyalty among a key demographic?

Q: Common reason for *not* adopting a potential farm management app or software?
(By age)



Value Creation Opportunities

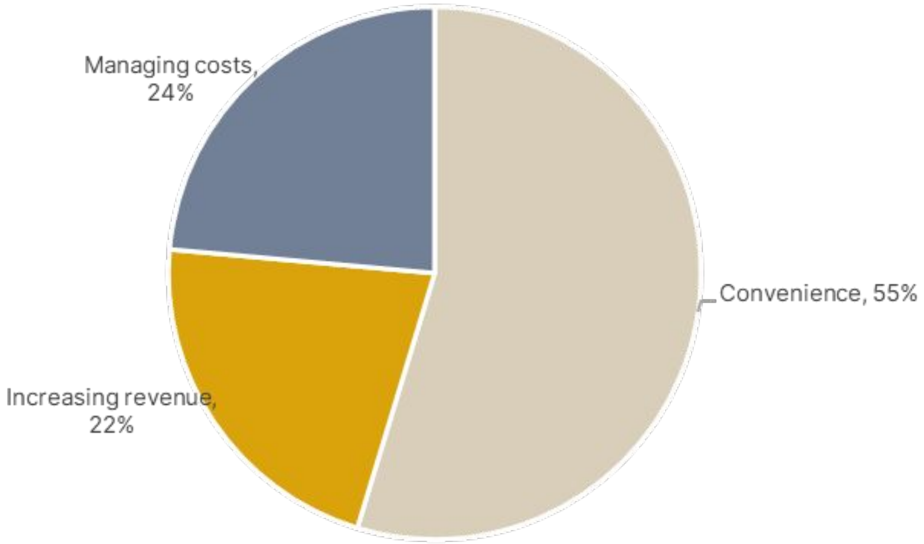
Convenience is the largest value creation for farm apps & software. But stated differently, it could be hard to find value if the technology makes life more difficult.

Convenience: Easier/faster to accomplish tasks or manage the business.

Increasing revenue: Higher yields, better marketing, etc.

Managing costs: Measuring, cost reduction, etc.

Q: How have apps/software created value for your farm?



"We're utilizing the Bushel software to help manage growers' data, from grain contracts, to ticketing, to settlements – streamlined, easy process for the growers."

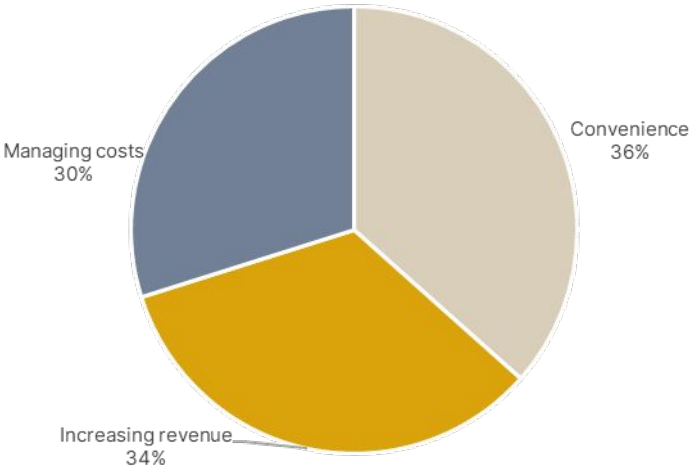
ANDREW GLADDEN, IT MANAGER,
LUCKEY FARMERS, INC.

Learn More

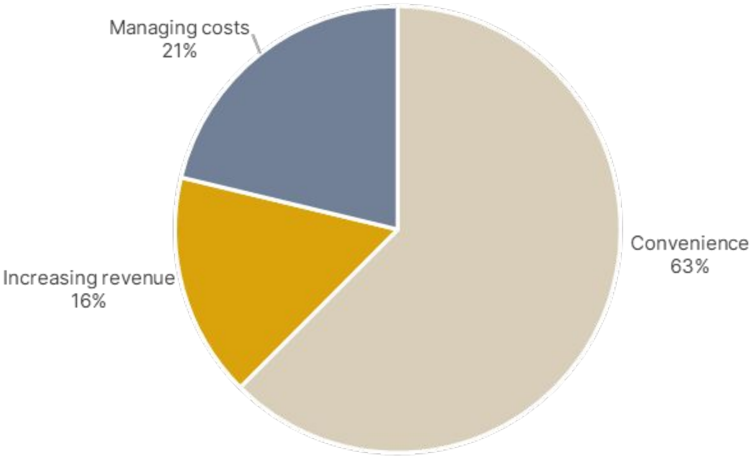
Convenience: Magnitude of convenience varies but remains dominant when looking at younger and non-growing farms

Q: How have apps/software created value for your farm?

Age: 18-40



5-Year Growth Plans:
Small, Exit, Retirement



Convenience: Easier/faster to accomplish tasks or manage the business.
Increasing revenue: Higher yields, better marketing, etc.
Managing costs: Measuring, cost reduction, etc.

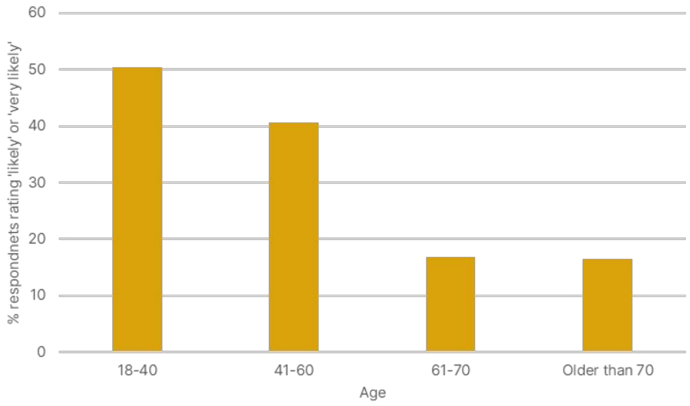
Using Technology to Submit Offers or Sell Grain

33% were “likely” or “very likely” to submit a grain offer or sell grain through an app or website.

Likelihood approaches 50% of younger and high-growth producers.

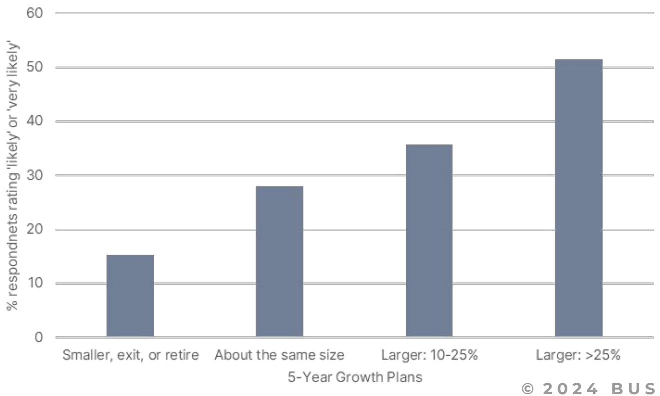
Q: Respondents ‘likely’ or ‘very likely’ to use an app/website to submit offers or sell grain?

(By age)



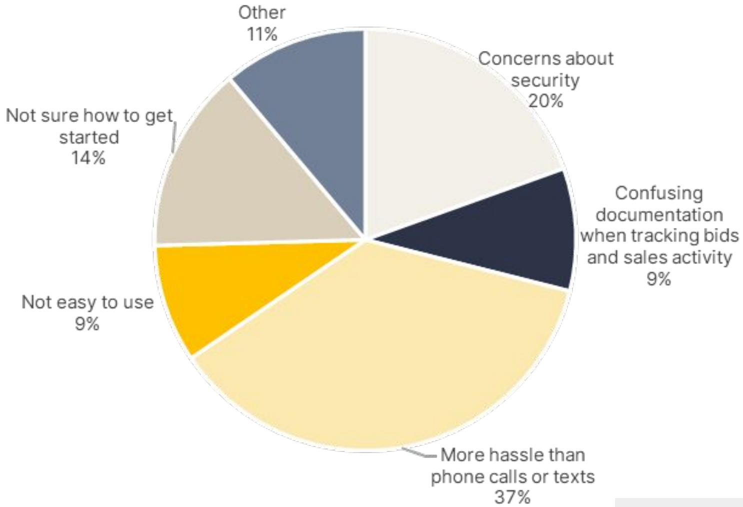
Q: Respondents ‘likely’ or ‘very likely’ to use an app/website to submit offers or sell grain?

(By growth)

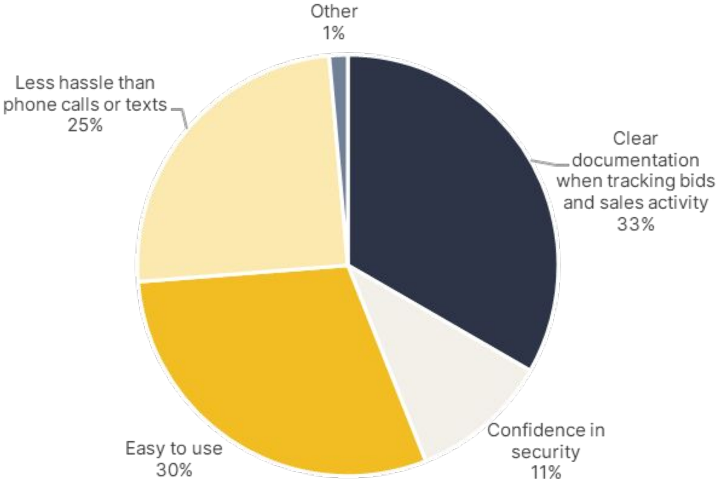


Reason for using an App/Website to Submit Offers or Sell Grain

<u>Barrier</u> of using an app/website to submit offer or sell grain. (Those *not likely* to use.)



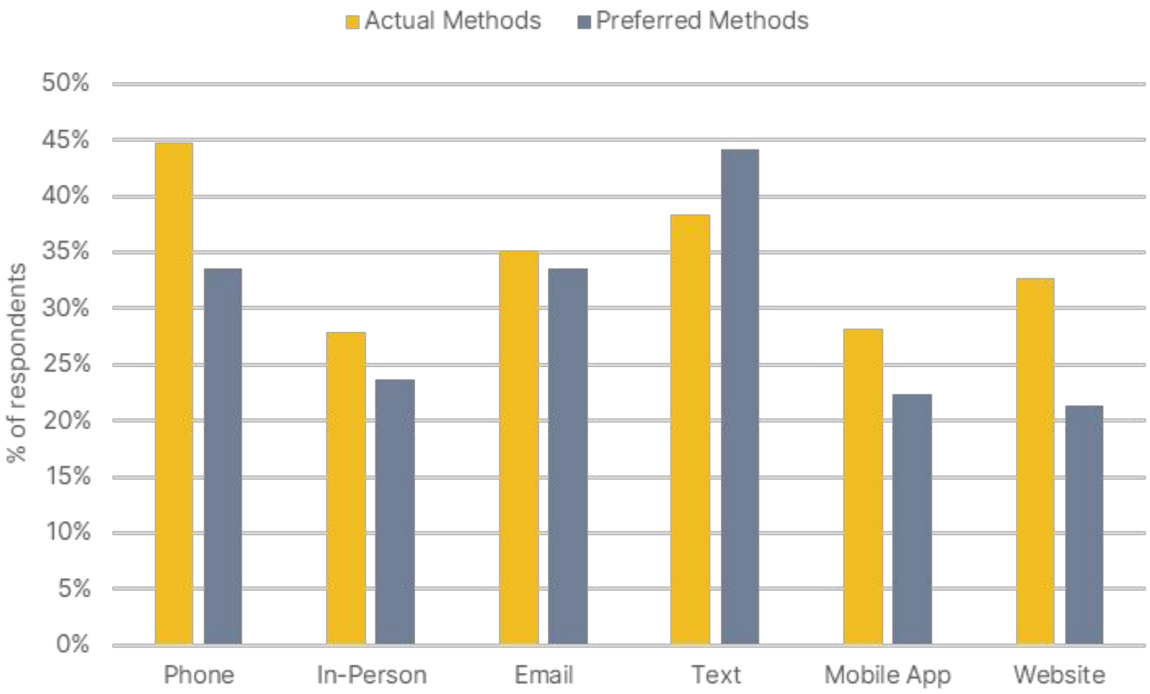
<u>Advantage</u> of using an app/website to submit offer or sell grain. (Those likely to use.)



One producer's frustration,
is another producer's solution.

Communication Channels

Q: How do you receive information from grain buyers?



- Producers prefer more text message updates than they are receiving.
- Phone and websites have the largest gap between actual and preferred (-11 percentage points).
- Remember: Young producers earlier stated a preference for timely payments & marketing programs, trading-off 'relationship with staff.'

"I'm blown away by the [eSign] contract aspect. It saved us a lot of time here in the office from administrative headaches."

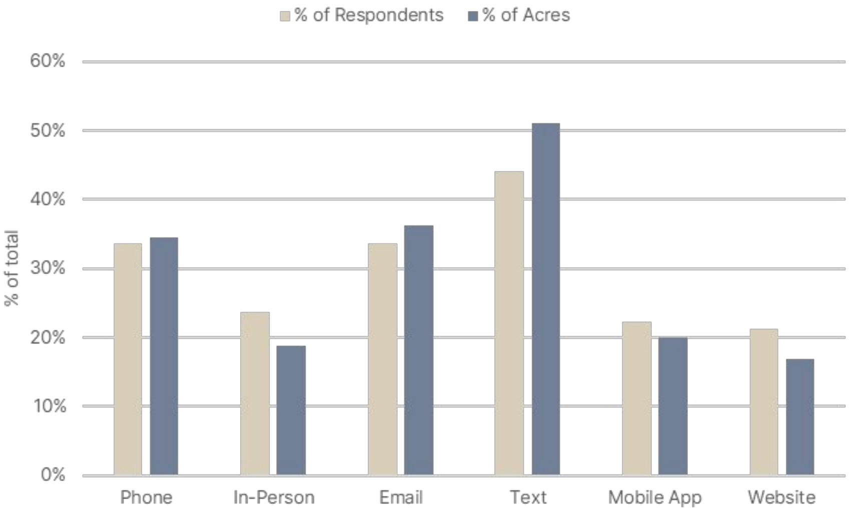
LOU PFISTER, DIRECTOR OF OPERATIONS, WOODALL GRAIN

Learn More

Communication Channels

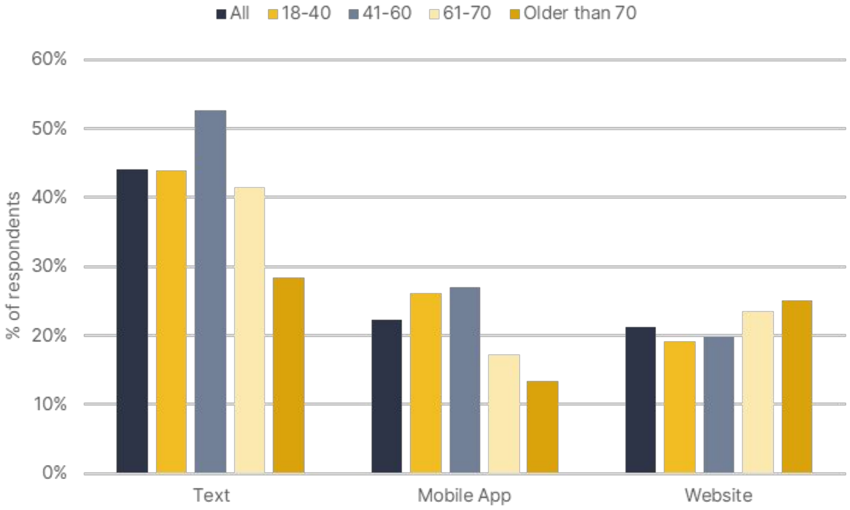
Text messages very popular among large producers.

Q: How do you prefer to receive information from grain buyers?



Q: How do you prefer to receive information from grain buyers?

(Select methods; By age)



Text and Apps have strong preference among young producers.

Older producers have stronger preference for websites.

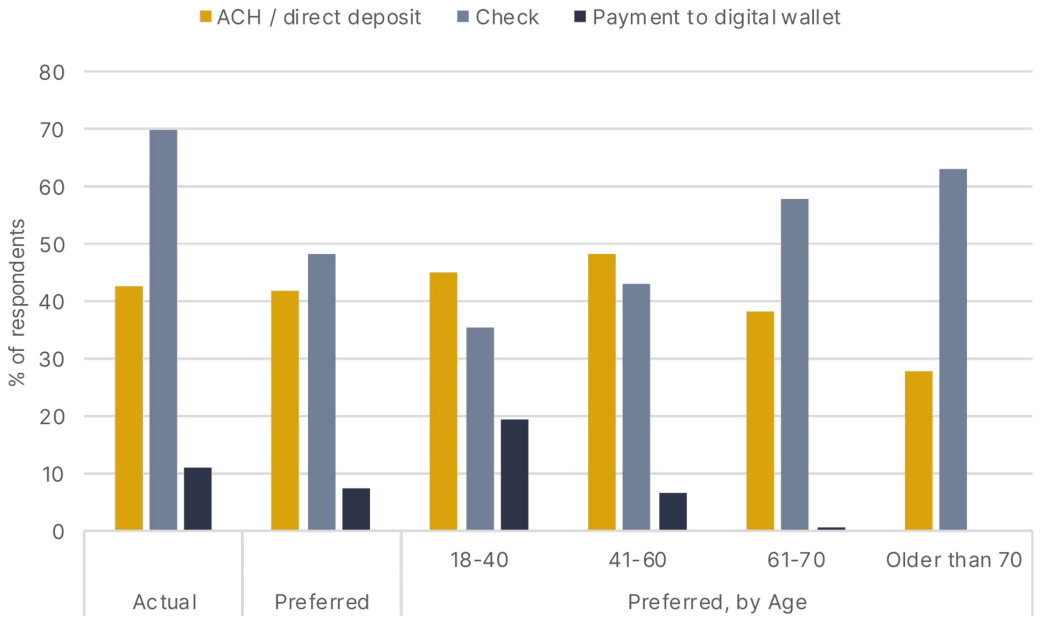
Grain Payments

70% receive payments via check.
40% receive payments via ACH.

Is anyone satisfied? Preferences vary:

- 18-40 year olds:
  20% prefer digital wallet payments.
- 61 or older:
  Majority prefer paper check.
- ACH stuck in the middle?

Q: How do you receive grain payments? How do you prefer grain payments?
(By age)



Use of Technology
Recap

- Aggressive usage of technology by young and growing farms.
- Cost and unclear benefits are frequent barriers for not adopting technology.
    - Cost is an issue for younger producers. Can alternative business models help producers access resources (i.e. tools provided by grain buyers)?
- Convenience dominates.
    - Lesson: Technologies that make our lives easier are always popular.
- The future of the marketplace: 50% of young and high-growth respondents “likely” or “very likely” to submit offers or sell grain via app/website.
- Selling grain via App/Software vs Phone: One’s barrier is another’s advantage.

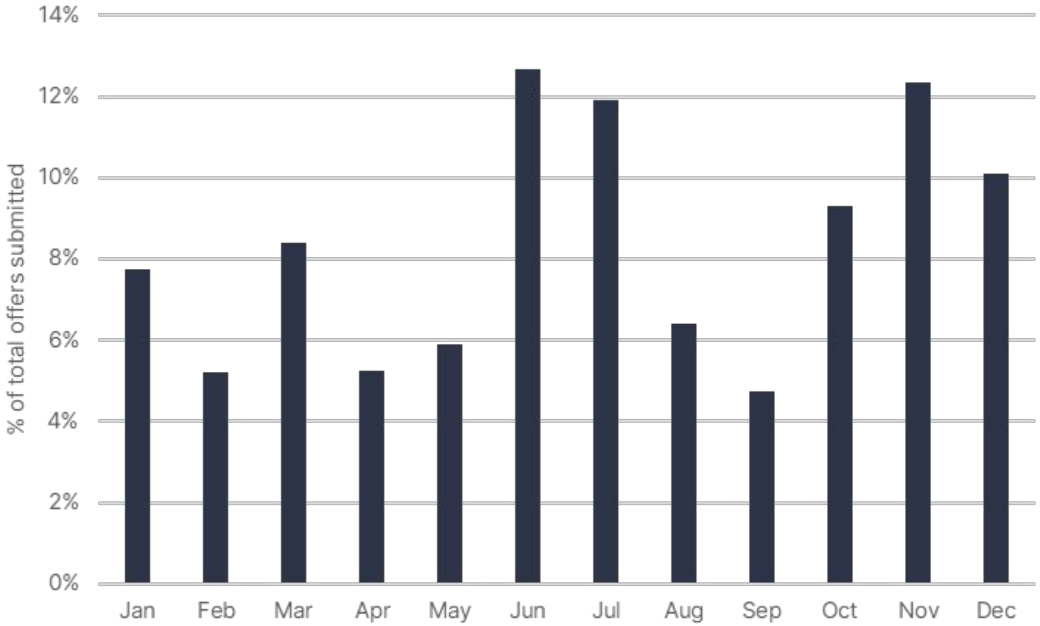
Insights from Bushel Trends

In 2023, producers were actively submitting grain offers in June, July, November, and December.

47% of all offers occurred in those four months.

“Busy seasons” can make grain buyers’ lives hectic.

Seasonality of Mobile-submitted Grain Offers via Bushel, 2023



Insights from Bushel Trends

+18%

In 2023, the average size of mobile offers submitted via Bushel was 18% larger than in 2022.

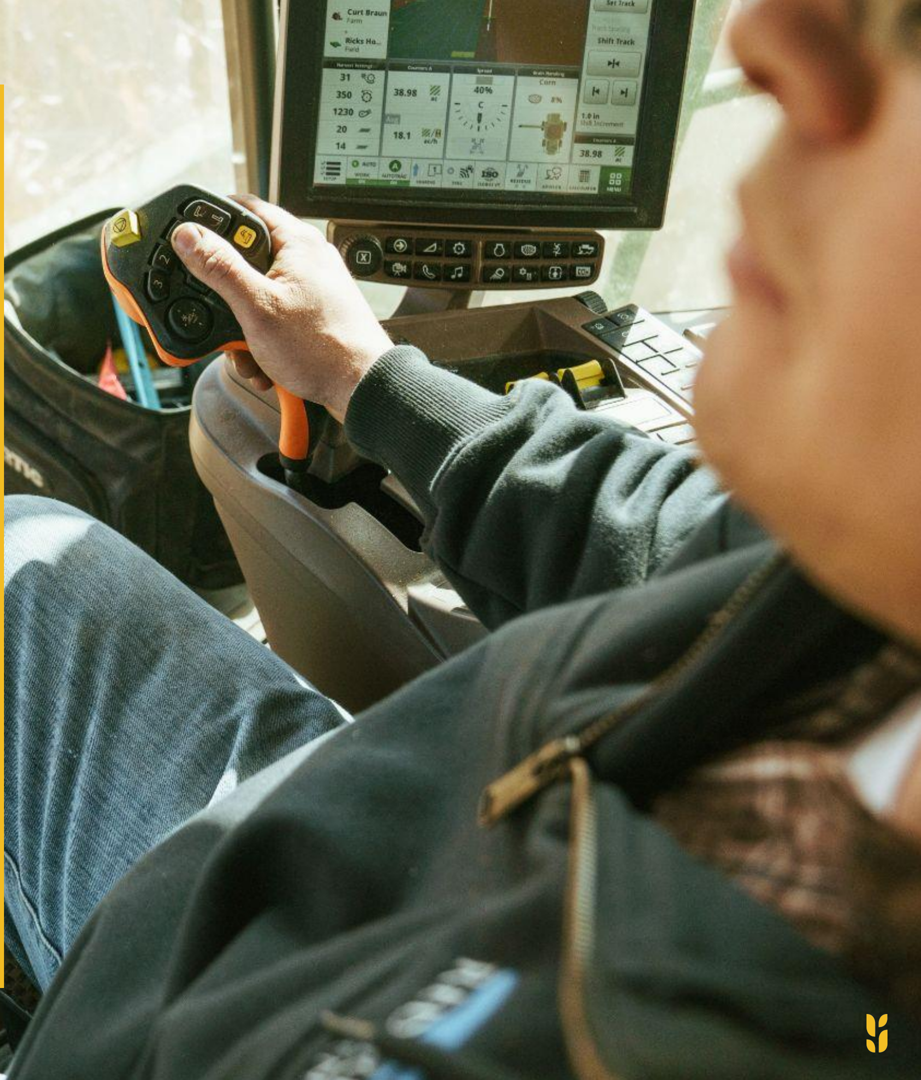
Technology allows more grain to be sold in a new way.

57%

In 2023, 57% of all mobile offers submitted via Bushel were filled.

Comparison: Only 43% of non-mobile offers filled.*

*Non-mobile = traditional offer submission methods, including telephone and text messaging.



Key Findings

Three key demographics emerge:

- Young producers
- High-growth producers
- Large acreage producers

These demographics are important because:

- Number of respondents versus the acres represented.
- Young and high-growth farms represent future customers and market.

Technology adoption: Aggressive adoption by young and growing farms.

How can agribusinesses and grain buyers respond?

- Deliver technology-powered solutions that align with the preference, needs, concerns, and opportunities of key segments.
- Opportunities to create long-term value for customers.

What Agribusiness Customers Are Saying About Bushel

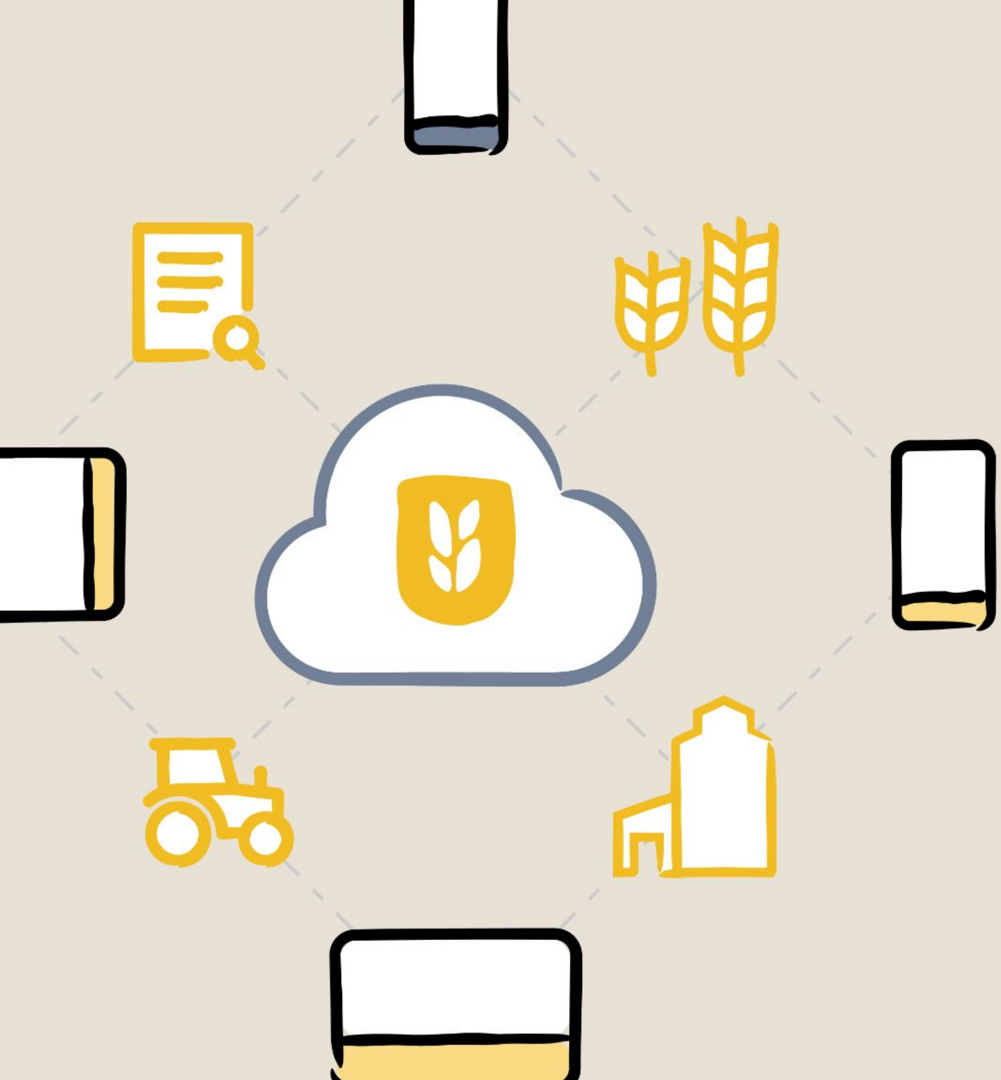
"I've had old farmers who don't have smartphones go out and buy one just to use our Bushel-powered app!"

"Bushel brought something to the table for us that is game changing. Whether you want to embrace it or not, 10 years from now 90% of the transactions are going to be done digitally. And I've been in the industry for 42 years, so I know what I'm talking about."

"I tell my farmers they need to start using our Bushel-powered app to make trade offers. It's not like old-school marketing. We don't move 10 cents in a week. We're moving 30 cents in a day sometimes. They're missing huge opportunities. They need to use the app to make offers - it adds an extra layer of marketing capabilities for them."

"Bushel is going great. I honestly don't now how we operated without it prior."

Read More Testimonials



Solving Problems Together

Bushel partnerships create digital solutions for agribusiness growth through collaboration, efficiency, and data integration with your systems. Enhancing service for customers and providing essential data when you need it.

Learn More

Thank You

Digitization in agriculture might be inevitable, *but it has to matter*. Bushel provides farmers and agribusinesses digital tools and experiences that matter to your operation's bottom line and your hard-earned relationships.

Thanks for reading, and thank you to all the farmers who took our survey to help create this report. You can learn more about how Bushel impacts farmers and agribusinesses at bushelpowered.com.

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