



EXECUTIVE INSIGHTS

Key Crop Input Trends for Growers Are Shifting

As agricultural growers continue to shift from branded to generic crop protection products, a move fueled primarily by generics' lower price points, that shift is expected to slow only slightly going forward. Meanwhile, the use of biologicals — in the forms of biopesticides, biostimulants and biofertilizers — is poised to increase due to their ability to improve yields, manage costs and aid soil health.

The outlook comes from a survey of more than 200 U.S. growers across a broad range of demographics and farm characteristics that L.E.K. Consulting conducted in February 2025. The distribution of respondents in the survey sample, which is directionally proportionate to the U.S. crop production landscape and includes a significant share of midsize to large growers, is relatively balanced across crop types and farm sizes, with larger farms skewing slightly more toward row crops.

As the results of our survey demonstrate, while growers' success is largely dependent on producing consistent yields year over year, they are open to changing how they operate when they see strong data — and a good return on investment (ROI) — behind those changes. In other words, for both specialty input manufacturers and the investors in these companies, demand for both generic crop protection products and biologicals is likely to rise as their benefits are made increasingly clear.

Generic crop chemicals usage outlook

In the wake of COVID-19, both row and specialty crop growers' use of generic crop protection products as a proportion of total crop chemicals rose an average of 5-6 percentage points,

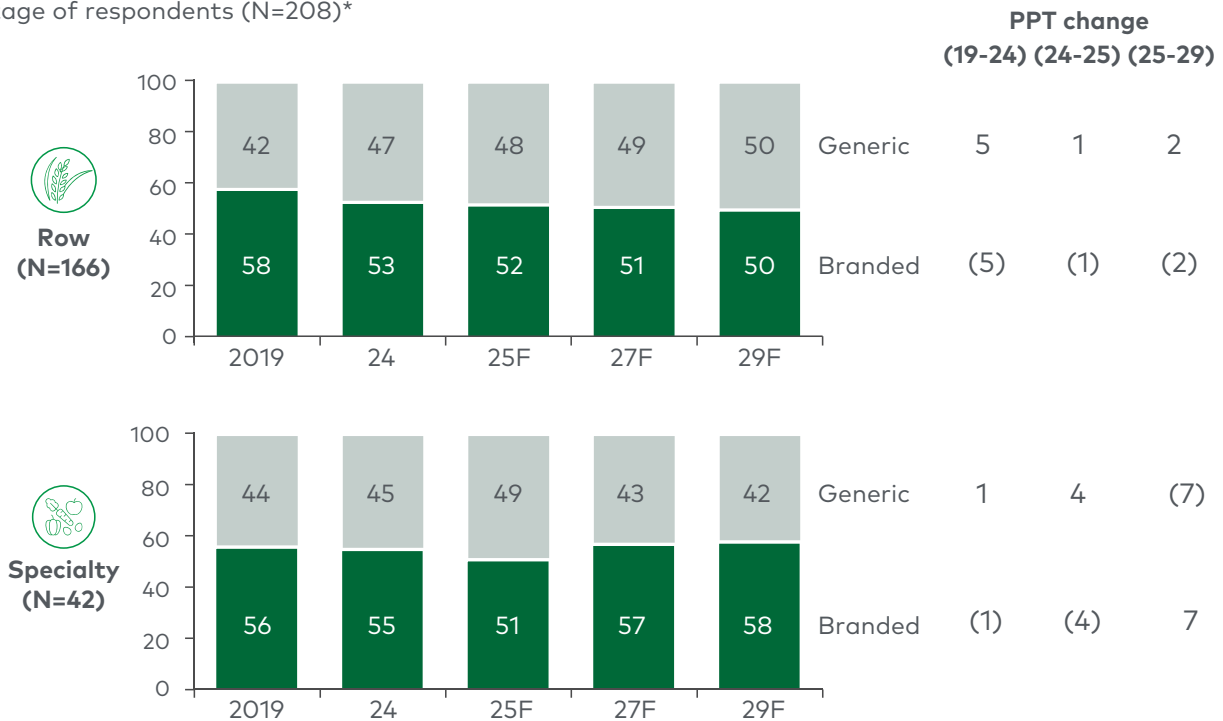
primarily due to their lower cost as well as supply chain challenges for branded products. Additionally, growers' views indicate an increasingly strong belief in their quality and reliability, a clear sign that the gap between the perception of generic and branded products has been closing.

Going forward, through 2029, row crop growers expect a more moderate but continued shift (up 2 percentage points) toward the use of generic crop chemicals. Indeed, growers have already observed an increase in the prevalence of low-cost suppliers focused on generics, particularly for herbicides and insecticides, which is creating a more competitive sales environment at the supplier level. However, the recent tariff dynamics (if not resolved) could likely challenge generics — particularly those from China — by reducing the cost disparity relative to branded crop protection products. Meanwhile, specialty growers expect their use of branded chemicals to rebound (up 7 percentage points) (see Figures 1a and 1b).

Figure 1a

Percentage of crop chemicals purchased, by generic vs. branded (2019, 2024, 2025F, 2027F, 2029F)

Percentage of respondents (N=208)*

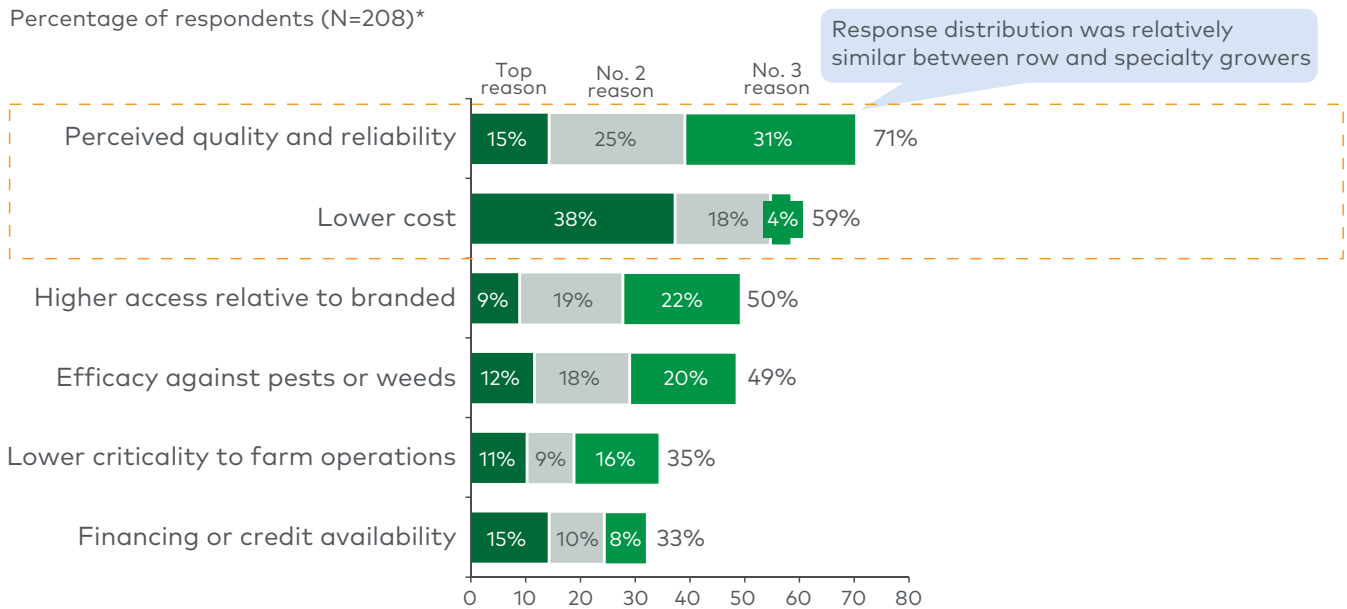


*Survey questions: What percentage of your farm's crop chemical (e.g., herbicides, fungicides, insecticides, biocides, defoliants and desiccants) usage was branded vs. generic in 2019 (prior to COVID-19), last year (2024) and this year (2025)? What share of your crop chemical usage do you expect to be branded vs. generic two years from now (2027)? Four years from now (2029)?

Note: PPT=percentage point
Source: L.E.K. survey and analysis

Figure 1b

Reasons for increased use of generic crop chemicals (2025)



*Survey questions: What percentage of your farm's crop chemical (e.g., herbicides, fungicides, insecticides, biocides, defoliants and desiccants) usage was branded vs. generic in 2019 (prior to COVID-19), last year (2024) and this year (2025)? What share of your crop chemical usage do you expect to be branded vs. generic two years from now (2027)? Four years from now (2029)?
Source: L.E.K. survey and analysis

Biologicals poised to gain further adoption and usage

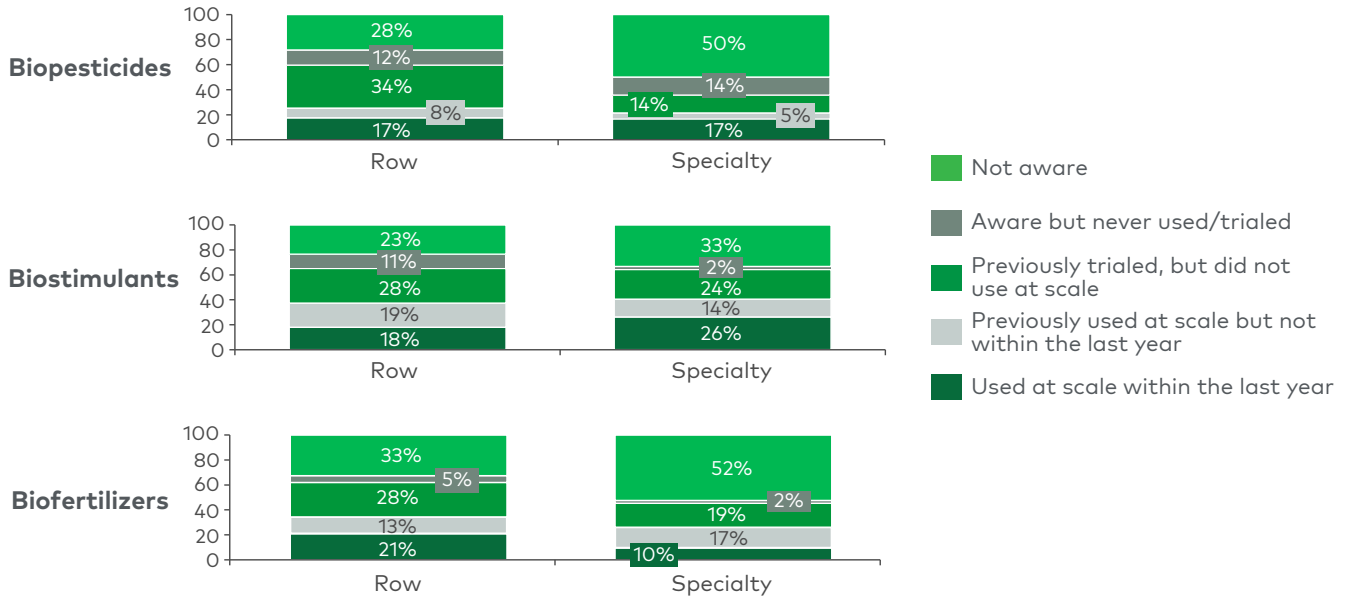
Roughly half of the growers we surveyed had used, or at least trialed, biopesticides, biostimulants and biofertilizers, with younger growers (i.e., under age 40) more likely to be using biologicals — biopesticides in particular — at scale. And awareness and usage are generally higher among row crop growers than among specialty crop growers. Indeed, row crop growers exhibit greater awareness of biologicals across types (15%-20% more row growers are aware of them, on average), especially biopesticides and biofertilizers.

That said, about a third of our survey respondents claimed to be unaware of each of those three biological segments, especially biopesticides and biofertilizers, meaning there's room to increase awareness of them through field trial data and grower education (see Figure 2).

Figure 2

Current level of biological usage, by respondent's primary crop type (2024)

Percentage of respondents (Row, N=166; Specialty, N=42)*

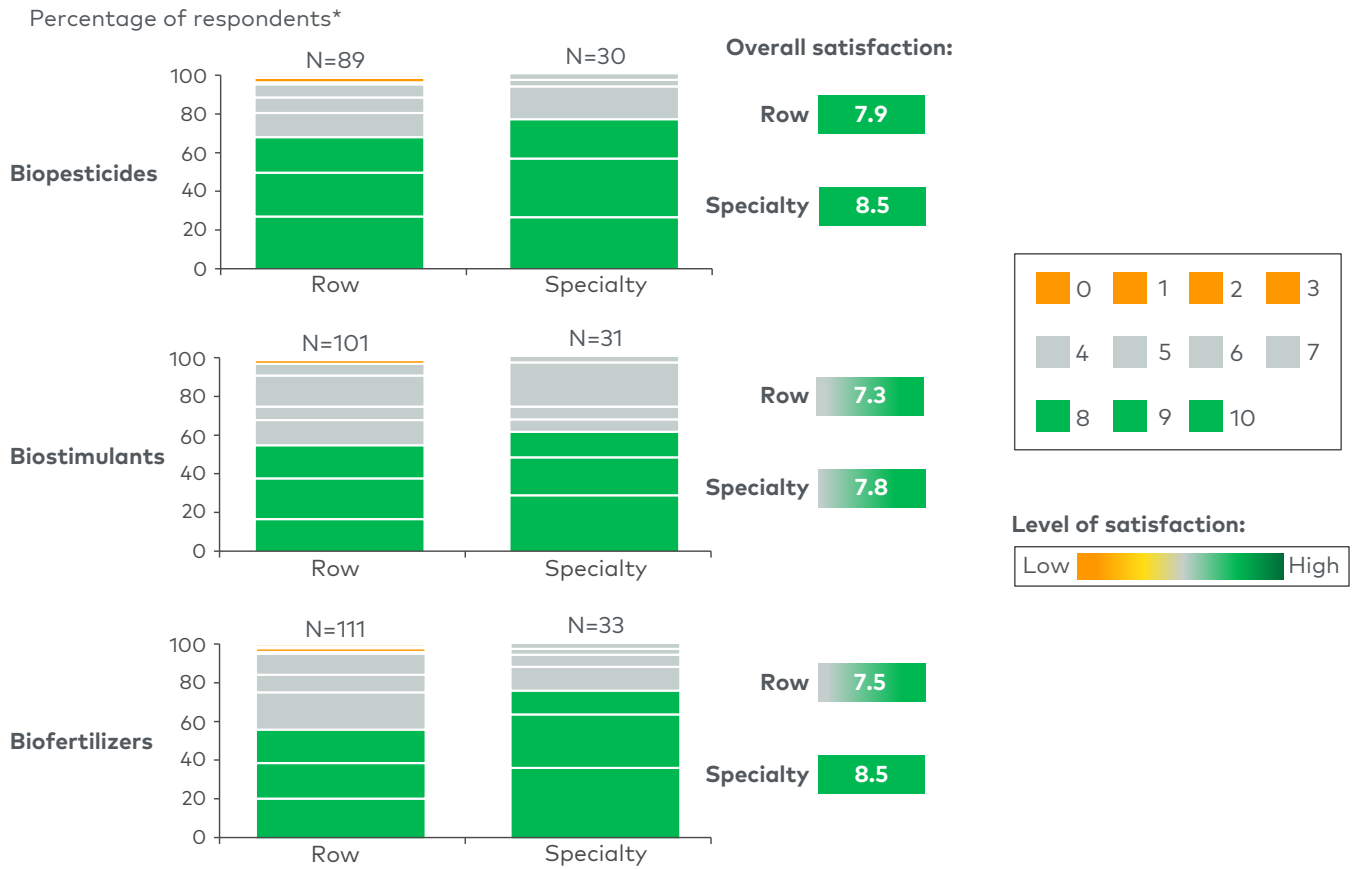


*Survey question: For each of the following crop biologicals, please indicate your level of awareness and whether you have ever used any of them. Source: L.E.K. survey and analysis

But for all three types of biologicals, growers who had used or even just trialed them exhibited relatively high satisfaction — biopesticides, biostimulants and biofertilizers all received 7s and 8s on a 10-point scale for satisfaction — and said they intended to increase their use of them going forward. The majority of users expect to increase their usage of biologicals over the next two years, with specialty growers (on average) expecting to increase their use of them more than row crop growers (see Figures 3a and 3b).

Figure 3a

Current level of biological satisfaction, by respondent's primary crop type (2024)



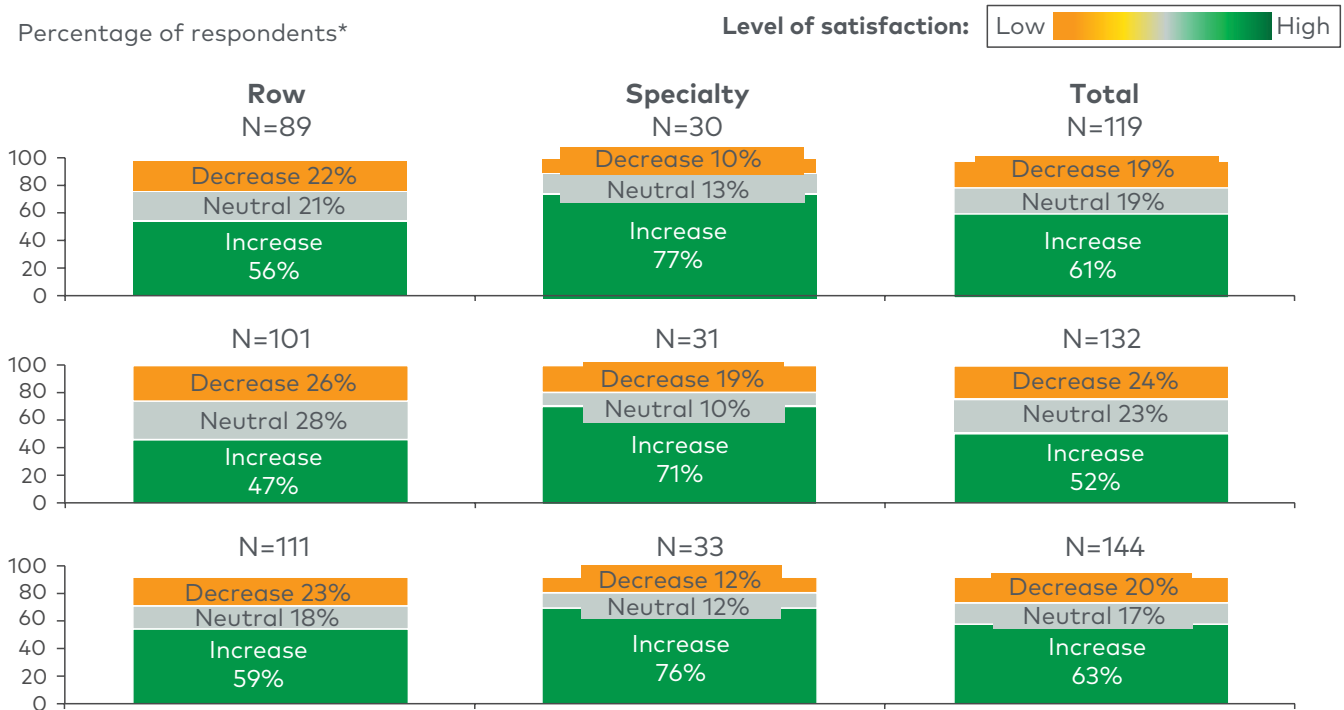
Survey question: How satisfied are you with the crop biologicals you trialed or used, where 0 means "not at all satisfied" and 10 means "very satisfied"?

Note: The question was posed to respondents who indicated they had previously trialed or used the respective biological at scale

Source: L.E.K. survey and analysis

Figure 3b

Expected change in usage of biologicals among users, by type (2024-26)



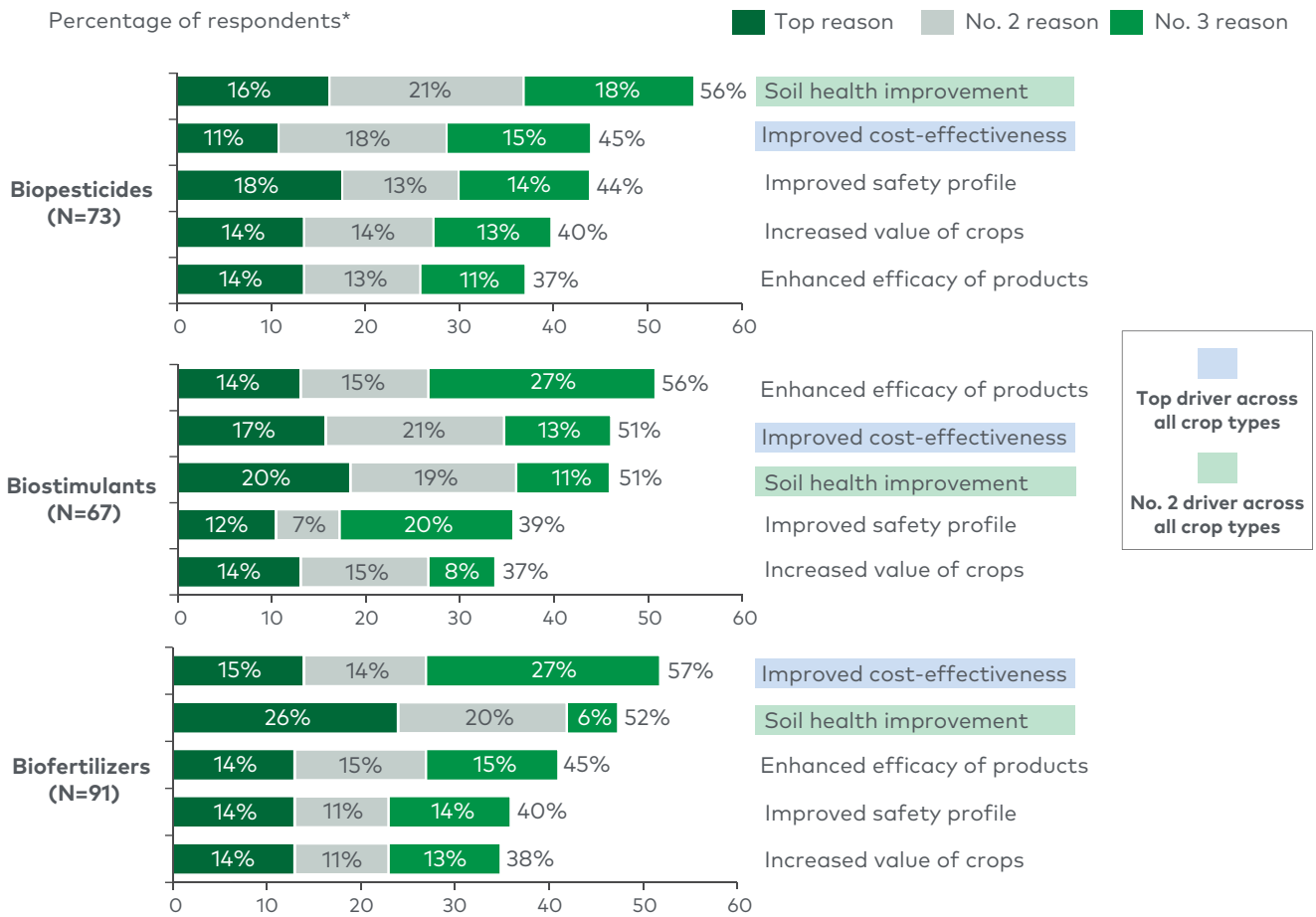
*Survey question: How satisfied are you with the crop biologicals you trialed or used, where 0 means "not at all satisfied" and 10 means "very satisfied"?

Note: The question was posed to respondents who indicated they had previously trialed or used the respective biological at scale
 Source: L.E.K. survey and analysis

But while growers who expect to increase their usage of biologicals cited soil health improvement and improved cost-effectiveness as the top drivers for all three segments (biostimulant users also indicated a perceived increase in efficacy), accurately assessing their impact – and their true ROI – continues to be a challenge (see Figures 4a and 4b).

Figure 4a

Top drivers of increasing usage of biologicals, by type (2024-26)

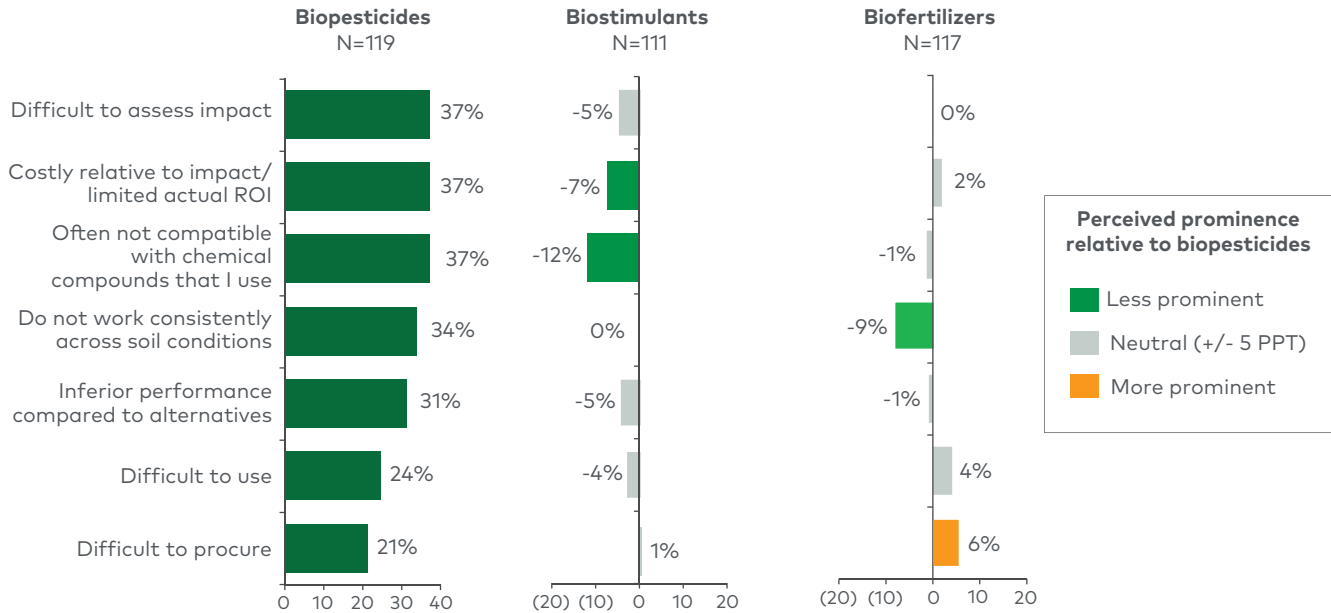


*Survey question: To what extent do you agree or disagree with the following challenges? Please rate each statement on a scale of 1 to 7, where 1 means "strongly disagree" and 7 means "strongly agree."
 Source: L.E.K. survey and analysis

Figure 4b

Most prominent challenges/barriers to using crop biologicals

Percentage of respondents selecting 6 or 7*



*Survey question: To what extent do you agree or disagree with the following challenges? Please rate each statement on a scale of 1 to 7, where 1 means "strongly disagree" and 7 means "strongly agree"
 Note: ROI=return on investment; PPT=percentage point

As to growers who have not used biologicals, they are relatively open to trialing/using them over the next two years: 25%-35% of nonusers of biologicals indicated that they definitely or probably will trial these products within the next two years, with interest particularly high for biostimulants versus biopesticides and biofertilizers. Less than 30% of growers who have not used biologicals indicated they are opposed to trialing or using each of the three biological segments included in the survey.

The larger demographic shift taking place will also play a big role in the adoption of biologicals. As older growers start to retire, they are handing the reins over to a generation that is more averse to, and thus less likely to use, synthetic chemicals.

Fertile ground for higher yields

Much like the weather, the agricultural growers' space, while largely predictable, changes slowly over time. But it is already fertile ground for manufacturers of generic crop protection products and biologicals looking to get traction with growers as well as for their investors.

Indeed, as our survey results show, growers' attitudes toward generic inputs are evolving. Their willingness to invest more in trial biologicals, for example, should be viewed as a green light for specialty input companies looking to get traction in this field.

Meanwhile, our survey indicates that, primarily in an effort to secure better pricing, growers have been gradually shifting toward direct-from-manufacturer sourcing, a move that is expected to pick up speed in the near term. Indeed, if crop prices continue to remain low, growers indicated they are most likely to scale back on discretionary expenses. To learn more about the latest channel trends, don't miss our companion survey piece.

To set up a meeting to learn more, please [contact us](#).

About the Authors



Peter Walter

Peter Walter is a Managing Director and Partner in L.E.K. Consulting's New York office. Peter has more than 25 years of global consulting experience, with a focus on growth strategy development, M&A and performance improvement for both corporate and investor clients. He leads L.E.K.'s Agribusiness practice in the Americas and the Environmental Services practice, and he works across selected industrials markets, such as specialty chemicals, packaging and industrial/business services.



Will Garrigues

Will Garrigues is a Principal in L.E.K. Consulting's San Francisco office and is a member of the Industrials practice. Will has extensive experience in agriculture, food and industrial biotechnology. He advises food, agribusiness and investor clients on a range of issues, including growth strategy and M&A.



Justin Mullinax

Justin Mullinax is a Consultant in L.E.K. Consulting's Chicago office and a member of the firm's Industrials practice. Justin has experience across industrials sectors including agriculture, building & construction, energy & environment, and manufacturing. He advises clients on a range of critical issues, including growth strategy and M&A.

About L.E.K. Consulting

We're L.E.K. Consulting, a global strategy consultancy working with business leaders to seize competitive advantage and amplify growth. Our insights are catalysts that reshape the trajectory of our clients' businesses, uncovering opportunities and empowering them to master their moments of truth. Since 1983, our worldwide practice — spanning the Americas, Asia-Pacific and Europe — has guided leaders across all industries, from global corporations to emerging entrepreneurial businesses and private equity investors. Looking for more? Visit www.lek.com.

L.E.K. Consulting is a registered trademark of L.E.K. Consulting LLC. All other products and brands mentioned in this document are properties of their respective owners. © 2025 L.E.K. Consulting LLC