



2016

STATE OF THE INDUSTRY

WHITEPAPER



greenhouse
GROWER
Industry Report

Greenhouse Grower's 2016 State Of The Industry

A year of growth in 2015 also had its share of challenges, and as a result, growers and suppliers are a bit more guarded going into 2016. After a few years of extreme weather and drought, a massive ongoing labor shortage, a shaky economy, and increased government regulation, *Greenhouse Grower's 2016 State Of The Industry Survey* shows growers and retailers are moving forward with cautious optimism.

The 255 grower respondents to our survey included grower-retailers, wholesale growers, and young plant growers. The survey also included a section with questions for suppliers, with 103 responding.

Sixty-eight percent of the grower respondents said their sales grew in 2015 over 2014, down from 71% growth in 2014 over 2013. As a result, 58% said they'll increase production volume in 2016, while 32% said they'll grow the same volume of crops as last year. Growth remains constant, as 42% said they plan to add or retrofit a greenhouse structure in 2016, the same percentage as those who planned to build or retrofit in 2015, while 37% said they don't see a need.

Prices won't increase overall, as 60% of growers said they'll keep prices flat over 2015, but a bold 38% said their 2016 prices will be higher. That indicates more cautious growth compared to 2015, when half of grower respondents said they planned to increase prices. Price increases are more common among large growers, with 55% saying they'll raise prices in 2016.

Herbs and vegetables are the largest growth area for growers in 2016, with 42% planning to increase production. Meanwhile, 33% of growers said they plan to grow greenhouse produce in 2016, while another 10% are looking that way down the road a few years. Another 57% said they don't plan to grow greenhouse produce at all. Looking a little closer, small growers are the ones who are most interested in this segment, with 45% saying they'll pursue growing greenhouse produce in 2016.

The escalating interest in the cannabis market hasn't changed drastically in terms of the number of growers looking into production. Just 2% of growers said they'll plan to pursue growing medical marijuana in 2016, but another 14% said they'll consider it over the coming years as the market becomes more stable. Another 84% said they have no plans to grow medical marijuana. Growers seem to be more conservative than suppliers, who indicated that they are optimistic about the opportunities available in the cannabis market, as well as increased expansion into the greenhouse vegetables side of the business.

Container perennials are another growing crop category, as 35% of growers said they'll increase perennial production this year. Ornamental bedding plants seem to increase in production every year, and this year is no exception, according to 35% of growers who said they'll grow more annuals. Flowering potted plants will grow in production for 26% of growers, and another 24% said they'll increase production of their own plugs and propagation material. Woody ornamentals are also increasing significantly among 18%

of growers. Specifically, growers mentioned patio containers would be a growth area this year, as well as drought-tolerant plants and specialty culinary crops like herbs and cut microgreens.

A large number of growers are eliminating use of neonicotinoids in production this year (64% overall), led mostly by small growers (69%), followed by large growers (57%) and medium-sized growers (56%). This has changed from 2015, when growers reported in our survey that 52% would not use neonics, while 48% planned to continue using the class of chemicals. Large retailers are continuing to phase out plants grown using neonicotinoids, including Lowe's mandated phase-out by 2019 and The Home Depot's recent announcement that 80% of its plants are already neonic-free and it will phase out any non-mandatory, regulated use of neonics by 2018. As a result, these retailers' grower vendors are being required to reduce or eliminate neonic use, as well. Seventy-four percent of growers who said they supply mass merchandisers and home improvement chains reported they won't be using neonics in 2016 production. Of those who are still using neonics in 2016, phase out is imminent or in progress.

The biggest financial pressure, across the board, is labor, labor, labor, with 61% of growers saying this contentious input is the number-one cost placing the biggest burden on their businesses. But beyond cost, labor supply was the most mentioned anecdotally. The labor pool is getting shallower and growers are reaching panic mode. The next closest financial concern was energy costs, with 16% of growers expressing financial stress in this area.

Top concerns going into 2016 for growers are the economy (26%), production costs (23%), government regulation (17%), and (the always constant) weather (12%). Extreme weather in the past several years, from bitterly cold and snowy winters in the past two years to El Niño conditions this year, and extreme drought in the West for more than five years to flooding and wet spring conditions in the East, has many growers concerned.

Generally, growers said increasing production costs are squeezing margins, and causing stress. This is not a new problem and certainly won't go away in the near future. The majority of vendors said they'll keep their 2016 prices about the same (53%), but 29% said they'll increase prices up to 5%, and 13% plan to increase prices by more than 5%. Growers said other than simply lowering their prices, suppliers could help in other ways to improve their profitability, as well. Chief among the requests are improved supply chain shipping reliability, just-in-time delivery of smaller orders, and improved shipping practices to help growers save on freight costs.

Despite their many concerns, growers are ready to tackle another spring season in 2016, and many have reported that investments they have made within the past year are helping to drive their operations into the future. Further, rising consumer confidence indicates good things for 2016, growers said.

See the full results below.

2016 Greenhouse Grower State Of The Industry Survey Results

Which of the following best describes your business?

Grower-retailer	31.0%
Wholesale grower	30.4%
Young plant grower	9.8%
Vendor/Supplier/Distributor	28.8%

Grower Questions And Responses

Where are you located?

Northeast (CT, ME, MA, NH, RI, VT, DE, MD, NJ, NY, PA)	13.8%
Midwest (IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI)	30.4%
Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV)	18.2%
Southwest (AZ, NM, OK, TX, CO)	6.7%
West (MT, NV, UT, WY, AK, CA, HI, ID)	9.5%
Northwest (OR, WA)	4.4%
Not in the United States	17.0%

What is your title?

Owner	59.0%
Senior Management	12.2%
Production Management	13.7%
Sales/Marketing	5.5%
Other	9.4%

What gender are you?

Female	27.7%
Male	72.3

How old are you?

Under 21	0.0%
21 to 34	12.9%
35 to 44	10.6%
45 to 54	23.6%
55 to 64	37.4%
65 or older	15.3%

What is the size of your greenhouse operation?

Small (Less than 100,000 square feet)	56.8%
Medium (100,000 to 399,999 square feet)	20.8%
Large (More than 400,000 square feet)	22.5%

Which of the following customers do you serve? (Check all that apply)

Your own retail shop	38.1%
Independent garden centers	39.0%
Other growers	36.5%
Other	20.3%
Supermarket chains	18.2%
Wholesale florists/brokers	19.0%
Home improvement chains	15.7%
Retail florists	10.7%
Mass merchandisers	12.8%
Warehouse clubs	9.1%
E-commerce sites	4.9%
Landscape contractors	29.8%
Events	12.4%
Farm markets	23.6%

Which of the following do you grow? (Check all that apply)

Flowering potted plants	53.7%
Herbs and vegetables	64.5%
Ornamental bedding plants	52.0%
Container perennials	53.7%
Plugs and propagation material	34.1%
Woody ornamentals	20.4%
Potted foliage	20.4%
Trees	15.8%
Other	8.7%
Fresh cut flowers	7.9%

What is your operation's annual sales volume?

Less than \$100,000	31.7%
\$100,000 to \$250,000	12.5%
\$250,000 to \$499,999	6.7%
\$500,000 to \$999,999	5.7%
\$1 million to \$4.99 million	13.9%
\$5 million to \$9.99 million	10.5%
\$10 million to \$14.99 million	2.8%
\$15 million to \$19.99 million	4.8%
\$20 million to \$24.99 million	2.8%

\$25 million to \$29.99 million	1.4%
\$30 million to \$34.99 million	0.4%
\$35 million to \$39.99 million	1.4%
\$40 million to \$44.99 million	0.4%
\$45 million to \$49.99 million	0.4%
More than \$50 million	2.4%

How do your operation's 2015 sales compare to your operation's 2014 sales?

Up more than 10 percent	22.3%
Up between 5 and 10 percent	23.3%
Up less than 5 percent	22.8%
Flat	20.4%
Down less than 5 percent	3.3%
Down between 5 and 10 percent	3.3%
Down more than 10 percent	4.2%

How will your 2016 production volume compare to your 2015 production volume?

Up more than 10 percent	17.1%
Up between 5 and 10 percent	24.7%
Up less than 5 percent	16.1%
About the same	31.9%
Down less than 5 percent	4.2%
Down between 5 and 10 percent	3.3%
Down more than 10 percent	2.3%

How will your 2016 prices compare to your 2015 prices?

Our 2015 prices will be higher	38.2%
Our 2015 prices will be lower	1.9%
Our 2015 prices will be about the same as 2014	59.8%

What was the best thing you did to improve sales in 2015? (Representative responses included:)

- More by seed.
- Accurate availability
- A good marketing strategy and also negotiating with important and big clients such as retailers.
- Innovative new products and production techniques
- Educate staff so that they have better understanding what the company's goals are
- Educate price vs end yield cost

- Streamline and condense species selection
- Internal offshore supply, increase internal young plant supply, further develop summer shoulder business
- Continue to streamline our customer base, and thus improving efficiencies, and sales still went up.
- Delivered more often to the stores which improved flow.
- Provide our own shipping and transportation means in order to provide rapid and customized access to specific plants
- Lean my operation
- More summer and fall sales
- Targeted small florist and small private store vendors and farm markets.
- Raise prices on premium annuals
- We are steadily building a reputation for being the best local perennial producer in terms of quality and selection. We can offer lower delivery fees because we service a geographically local market.
- We went long on inventory early in the year, because projections showed a possible shortage in several crop areas. Especially, in woody shrubs & perennials. When others were out of stock we were able to continue selling.
- Raise pricing to improve margins, invest in infrastructure & supply product that is not in larger box stores.
- Improved systems for sales forecasting
- Spacing plants earlier for better quality
- Expanded production area and used contract growers to grow more product.
- Better displays
- Contract growing for landscape contractors
- Better inventory management at retail
- Quality sells.
- More traveling and visiting customers to promote our product lines
- People. We selected and trained our seasonal staff with a different strategy. Instead of trying to be so hands on, I hired great sales and greenhouse managers. We also started adding technology to our operation.

Some growers are now filling the gaps in their crop schedules by growing and selling produce. Do you have any plans to grow produce?

Yes - I am planning to grow produce in 2016	32.8%
Yes - but not this season - maybe in the next few years	9.8%
No - I don't plan to grow produce	57.2%

Do you have any plans to pursue growing medical marijuana?

Yes - I am planning to pursue growing medical marijuana in 2016	1.9%
Maybe in the next few years, as we see where this phenomenon heads	14.2%
No - I don't plan to grow medical marijuana	83.8%

Do you plan to add or retrofit a greenhouse structure in 2016?

Yes	42.3%
No, we see no need to add or retrofit in 2016	36.5%
No, we can't afford to add or retrofit even though a need exists	21.1%

Which of the following input costs is placing the biggest burden on your business financially?

Chemicals	1.4%
Energy	16.2%
Fertilizers	0.9%
Labels and tags	0.4%
Pots and trays	4.9%
Soil and amendments	6.4%
Water	2.4%
Labor	61.0%
Other	5.9%

Do you plan to use neonicotinoid insecticides in production this year or will you use alternatives?

Yes, I will use neonicotinoids	36.2%
No, I will not use neonicotinoids	63.7%

Please explain how you came to this decision to use neonicotinoids, or to take them out of production, and what factors you will monitor in your 2015 season:

- Try to use NO chemicals
- CFIA requirement for outdoor crops for Japanese Beetle control
- We just adopted an ecological vision
- Not against using if and as needed if best choice
- The crop that receives the neonicotinoids is less than 1% of total production.
- Only use biocontrols
- Not a workable alternative trialed yet
- I still question the so called harm or scare tactic about BEEing harmful.
- Don't believe it's safe; bee populations suffer
- We ship out of state and are required to use neonicotinoids by the state of Iowa.
- Need to use them in hanging baskets where sprays are amazingly ineffective
- They are banned in Seattle and we don't spray
- We still feel that they are the only thing at times to resolve the issues and we are required to be pest and disease free to ship plants

- Growers use them in other countries and do not have a problem with CCD
- USDA report on neonics, eliminates use of other bi-weekly chemicals, saves labor
- We have been working to take them out of use for the past two years based on customer pressure
- We use them as little as possible but some crops would be eliminated from our schedule if we were not able to use them
- Did not use them in 2015, gained business as other greenhouses did use them
- CFIA demands neonic use prior to export, but it is used inside, not where the beneficials live
- The scientific evidence does not indicate a problem; if that changes, then we will too
- They are one of our safest and best tools to manage insects
- We use responsibly and support a HUGE honey bee population here. We are adding two new hives this spring. Proof is in the pudding, if more growers kept bees, it would help break the perception that we kill bees.
- Neonicotinoids work for us and are not illegal; we use them in limited amounts
- We try to be as natural as possible; it's part of our growing model

For which of the following crops are you planning to increase production in 2016? (Choose all that apply)

Container perennials	34.5%
Flowering potted plants	26.1%
Fresh cut flowers	6.2%
Herbs and vegetables	41.3%
Ornamental bedding plants	35.0%
Plugs and propagation material	23.5%
Potted foliage	23.5%
Trees	8.3%
Woody ornamentals	17.8%
Other	7.8%

For which of the following crops are you planning to decrease production in 2016? (Choose all that apply)

Container perennials	15.3%
Flowering potted plants	13.2%
Fresh cut flowers	5.1%
Herbs and vegetables	10.2%
Ornamental bedding plants	22.4%
Plugs and propagation material	7.1%
Potted foliage	5.1%
Trees	8.1%
Woody ornamentals	14.2%
Other	22.4%

Other than simply lowering their prices, what could vendors/suppliers/distributors do to help you improve your profitability?

- More ads and growing practices
- More reliable organic inputs
- Alliances, in which we can grow a business as partners sharing strategic information that allows us to understand the operational environment in both enterprises.
- Training on how we can use their product more efficiently - provide more information about the current products and future products
- In the dry goods categories, more vendors could support a co-op advertising program.
- More consolidation of orders to be delivered to the same area greenhouses to save on freight.
- Low minimums and ordering increments are always a plus.
- Discover new products/technologies that provide labor savings and introduce them to us on a one-on-one basis.
- Be on time with shipments and if they are going to be late let us know in advance so we can make the necessary arrangements.
- Work at building relationships vs handling accounts
- Direct market outreach to the consumer to raise product awareness.
- 1. FREE Point of purchase materials! 2. FREE shipping (or wrap it into the per unit price) - saves a whack of time preparing landed costs spreadsheets ourselves. 3. Make buying online much more seamless - most of our vendor/supplier/distributor's websites are dinosaurs.
- Partner with us on special projects to develop new products like special blend soil mixes, new tag/packaging concepts, etc. We are always looking for what's new, what's next.
- Increase demand by getting the economy growing again.
- More market trend research
- Grow disease free plants at the wholesale level, buy from disease free sources, cull out virus infected plants!
- Advertise in consumer magazines, TV, and radio
- More direct product information on new product lines direct from the manufacturer. Distributors and brokers sometimes don't have a complete understanding or product knowledge of what the manufacturer has to offer.
- Hard good vendors are not very good at providing us with catalogs, list of goods, prices
- Become lean in the production process, as well.
- Supply sales concepts. Think with me in the design of new sales concepts and how their products can help me better sell my products.
- Advise on new varieties that improve on growing times, traits and appeal to consumers to command higher dollars or save dollars in the growing system.
- Timely information on proposed price increases. Switching to electronic billing and making sure the vendor rep has his/her customers at heart. Having the ability to get back with the customer when they have a pressing concern other than days later at their pace.
- Offer more grower directed hands-on training /support
- Smaller split trays to expand selection of plant varieties. Stop forcing branded containers down our throat. Stop charging patent plant prices for varieties that have been around for decades.
- Educational seminars online
- Provide just-in-time inventory and invoice dating

- Partner in store shrink
- Make ordering via websites (possible and) easier to navigate, support website ordering with real sales reps, support educational workshops, most of all good customer support (some vendors have some of this already)
- Freight. It's very expensive getting things to and from where we are. Combining orders and utilizing existing carrier routes in the floral industry for an example would help cut input costs.

Vendor Questions And Answers

Where are you located?

Northeast (CT, ME, MA, NH, RI, VT, DE, MD, NJ, NY, PA)	17.8%
Midwest (IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI)	23.2%
Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV)	15.0%
Southwest (AZ, NM, OK, TX, CO)	10.9%
West (MT, NV, UT, WY, AK, CA, HI, ID)	10.9%
Northwest (OR, WA)	6.8%
Not in the United States	15.0%

Which product categories do you sell?

Business services	16.4%
Chemicals	23.2%
Computer services	2.7%
Containers	24.6%
Equipment and supplies	36.9%
Fertilizers	28.7%
Irrigation	26.0%
Labels/signs/tags	19.1%
Live goods	30.1%
Soil and amendments	28.7%
Structures	32.8%
Other	31.5%

What is your company's annual sales volume?

Less than \$100,000	4.8%
\$100,000 to \$249,999	6.4%
\$250,000 to \$499,999	1.6%
\$500,000 to \$999,999	6.4%
\$1 million to \$4.99 million	27.4%
\$5 million to \$9.99 million	11.2%
\$10 million to \$14.99 million	4.8%

\$15 million to \$19.99 million	0.0%
\$20 million to \$24.99 million	4.8%
\$25 million to \$29.99 million	4.8%
\$30 million to \$34.99 million	4.8%
\$35 million to \$39.99 million	0.0%
\$40 million to \$44.99 million	1.6%
\$45 million to \$49.99 million	0.0%
More than \$50 million	20.9%

How do your 2015 sales compare to your 2014 sales?

Up more than 10 percent	34.2%
Up between 5 and 10 percent	27.1%
Up less than 5 percent	15.7%
Flat	17.1%
Down less than 5 percent	2.8%
Down between 5 and 10 percent	2.8%
Down more than 10 percent	0.0%

How do you expect your company's 2016 sales to compare to your company's 2015 sales?

Up more than 10 percent.	38.5%
Up between 5 and 10 percent	27.1%
Up less than 5 percent	22.8%
Flat	10.0%
Down less than 5 percent	0.0%
Down between 5 and 10 percent	1.4%
Down more than 10 percent	0.0%

How will your 2016 prices compare to your 2015 prices?

More than 5 percent higher	13.2%
Between 1 and 5 percent higher	29.4%
About the same	52.9%
Between 1 and 5 percent lower	2.9%
More than 5 percent lower	1.4%

Please rank the following issues your company is currently facing from 1 (most challenging) to 7 (least challenging)?

1. Competition
2. Government regulation
3. Grower payment/credit issues
4. Consolidation of growers
5. Transportation/fuel
6. Supply from manufacturing companies
7. Economy

What is your biggest priority for helping growers in 2015?

Educating them better	55.0%
Improving product selection	31.6%
Lowering prices	1.6%
Offering early-order discounts	3.33%
Other	8.3%

What would you like growers to do that would improve profitability for both them and your company? (Representative responses included:)

- There are new and better plants to grow and always new technology to improve their efficiency and to help them to get bigger and better
- Be open to introduce new technology instead of the comfortable old way of growing
- Understand the real value of lighting - LED benefits
- We would like growers to see themselves as a whole business instead of "just a grower." There's still a lot of reliance on "this is the way we've always done it," but that doesn't work in the new normal of the business world.
- Stop using suppliers as their financial line of credit; usebanks and credit unions
- Plan more deeply into their business. Having a firm grip on all costs and margins will help growers move into more profitable and well run organizations.
- The earlier we can all plan our production for future seasons will decrease costs at every level, as reactive solutions are costly and don't always produce the desired results either.
- Learn more about intellectual property rights and apply for protection on new plants
- Become loyal to services provided by a company and not always see cost as the bottomline
- Order in full pallet quantities and carry inventory themselves
- Improve order fulfillment and quality
- Improve their marketing approach - looking further than their growing site to the ultimate consumer and retail markets
- Understand how to run a company

- Cooperate more and consolidate less (if you are asking for LONG term profitability). Order earlier so they get the plants they need w/o costly backorders/freight and interruptions to production schedules.
- Utilize renewable resources when heating greenhouses
- Focus on margins for channel- grower and retailer. Less focus on cost plus pricing.
- Attract young talent to the industry
- Willingness to learn from the edible ag market about bionutrition products that make them more profitable and more sustainable
- Focus on more sustainable and long-term views
- Help manage retailers' late decisions
- Embrace the changing demographics and trends
- Raise prices to end users, specifically box stores

What are the trends you're seeing for 2016 in your segment? (Representative responses included:)

- Indoor Controlled Environment Agriculture (CEA)
- People searching for technology that improves quality and profitability with no bad impact on ecology and people in general.
- Change from old guys to young guys managing farms
- Consolidation of supply sources. Fewer options for product placement
- Better education to support light use
- Lots of building which means more landscaping
- Larger business systems having mobile capability, making the entire system truly mobile instead of just a few apps.
- Growing on demand
- The big are getting bigger **because** they know their costs and have programs and procedures in place to limit their losses
- Integrated automation, connectivity
- Climbing roses gaining in popularity. Disease resistant varieties that are also fragrant.
- Breeding for drought, salinity tolerance and disease resistance using genetic markers, not necessarily creation of GMOs due to public perceptions.
- Steady independent garden center growth with flat to declining big box sales. Inventory lacks excitement
- Continued movement to softer and biorational chemistries
- More and more specialization in printing and labeling
- More growers are switching to unrooted cuttings.
- Consistent push for lower cost alternatives with higher impact looks.
- Growth in vegetable and medicinal markets.
- Less help funding from US government
- Complete retail, consumer ready plant package concepts.
- More demand for woody ornamentals, trees and liners
- Continuing move to edibles with broader product ranges and strong buy local movements.
- Sustainability
- Perennials grown as annuals, mixed containers that are retail ready
- Higher price points accepted by consumers

About Us

Greenhouse Grower is a trade publication that caters to commercial greenhouse floriculture operations across the United States. The magazine provides growers award-winning coverage of the greenhouse industry, as well as the tools needed to better their businesses. *Greenhouse Grower* offers growers the latest insight on production, business management, varieties, marketing and industry news and events.

You can connect with *Greenhouse Grower* on:

- Our website: www.greenhousegrower.com
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- Editor Laura Drotleff's Twitter feed: http://www.twitter.com/Laura_GG_Editor