

# SUMMARY REPORT

## 2015 PEI WILD BLUEBERRY GROWER SURVEY



Photo by Greg A. Hartford

### Research Project Sponsors:



### About the survey

The 2015 PEI Wild Blueberry Grower Survey was administered by researchers at the University of Maine during the winter of 2015/2016. The survey was funded by grants from the USDA Specialty Crop Research Initiative (SCRI) and the National Science Foundation (NSF) and was mailed to 221 individuals associated with lowbush blueberry production in PEI. Seventy-one survey recipients were not eligible to complete the survey. Of the 150 eligible participants, **75 lowbush blueberry growers returned a completed survey**, for a 50% response rate. This report contains a summary of the survey results. **All individual survey responses are confidential, and no personal names or personal information will ever be released.**

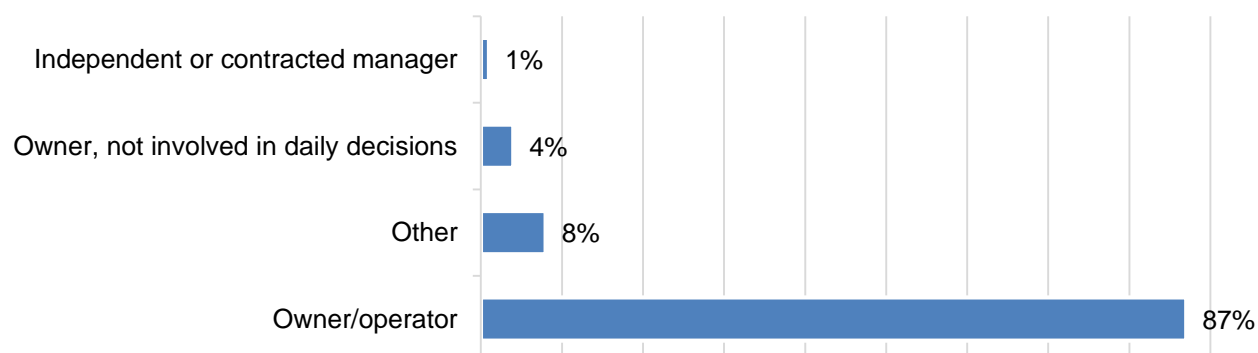
Thank you to all who participated in this study! If you have questions about the results, please contact the research project directors:

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## Section A. Respondent Confirmation

What is your primary role in the blueberry enterprise indicated on the address label?



In what county is your blueberry enterprise located?

County	Percent
Kings	58%
Queens	25%
Prince	17%

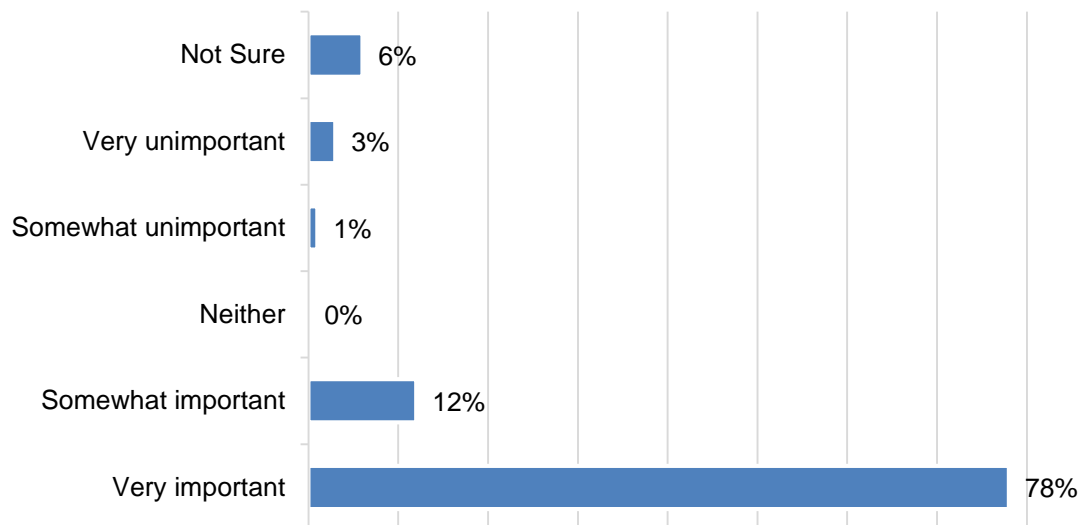
## Section B. Blueberry Outreach & Education Programs

There are several organizations in the region that offer different types of outreach activities and programs for blueberry growers. Have you participated in these general activities with any of the following organizations in the past five years?

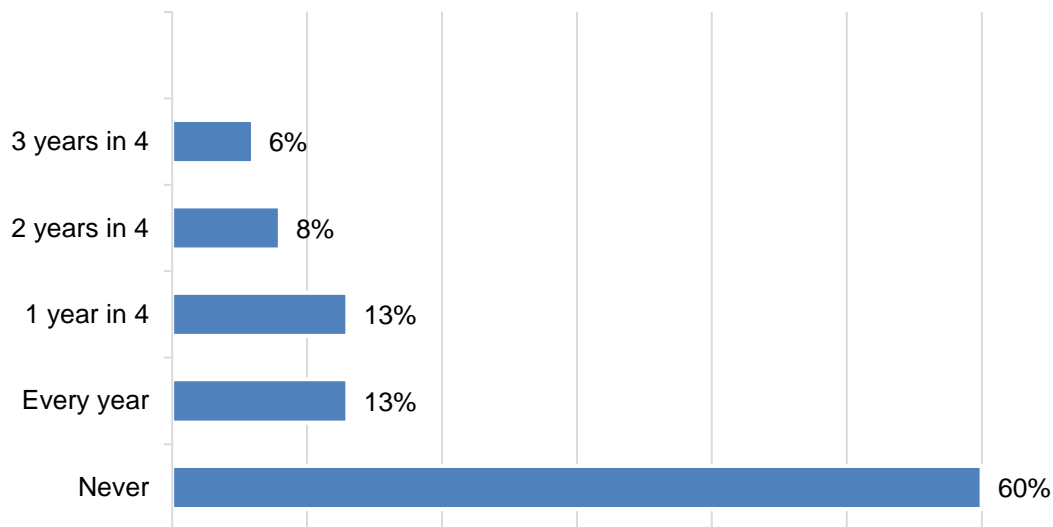
Organization	Read organization newsletter	Accessed organization internet resources	Attended field meeting	Attended classroom meeting	Spoke with organization staff
PEI Department of Agriculture	71%	36%	47%	38%	50%
Agriculture and Agri-Food Canada	22%	11%	6%	0%	6%
Acadia Blueberry Price Report	43%	1%	0%	1%	6%
Dalhousie University (Ag College)	15%	13%	8%	10%	11%
PEI Beekeepers' Association	19%	4%	6%	3%	10%
Wild Blueberry Association of North America (WBANA)	46%	21%	14%	13%	17%
PEI Wild Blueberry Growers Association	71%	35%	46%	33%	44%
Other regions' growers' association	18%	11%	13%	4%	8%

## Section C. Pollination Management

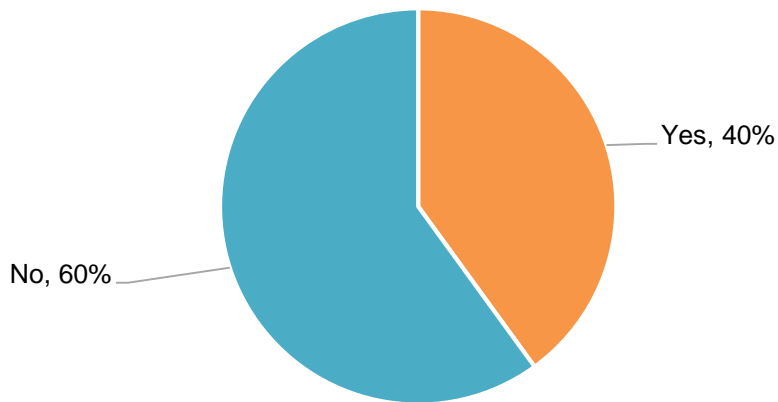
How important do you think wild bees are for pollinating your blueberry crop?



In your opinion, how often would you be able to get sufficient pollination from wild bees alone?



During the last five years have you had to apply any pesticides (e.g., insecticides, herbicides, or fungicides) during blueberry bloom?



### Use of Commercial Bees

Percent of growers who reported using commercial <u>honeybees</u>	72%
Average honeybee stocking density (among those who reported using honeybees)	0.88 hives/acre (min=0.1; max=3)
Average price paid per hive for commercial honeybees	\$133 CAD
Percent of growers who reported using commercial <u>bumblebees</u>	36%
Average price paid per quad for commercial bumblebees	\$246 CAD

### Grower Reported Concerns About Pollination

Availability of bees	27%
Cost of commercial bees	19%
Pesticides from the potato industry	14%
Wild bee population and health	14%
Lack of information about bees and other pollinators	11%
Wild bee habitat loss	8%
Border regulations for honeybees	8%
Diseases in imported bees	8%
Pesticides in general	5%
Weather	5%

For the following list of pollination management practices, please indicate whether you currently use each practice, whether you tried the practice in the past but later discontinued it, or whether you never used the practice at all. Currently used practices might be implemented every year, but could also be less frequent if appropriate.

Pollination Management Practice	Currently Use	Tried & Discontinued	Never Used	Did not respond
Rent commercial honeybees	72%	8%	12%	8%
Keep my own commercial honeybees	8%	7%	60%	25%
Purchase leafcutter bees	4%	8%	64%	24%
Keep my own leafcutter bees	3%	3%	67%	27%
Purchase commercial bumblebees	36%	7%	41%	16%
Plant pollinator plantings or other bee-friendly plants near my fields	21%	0%	55%	24%
Allow wildflowers to grow in my fields	28%	1%	48%	23%
Allow wildflowers to grow around the perimeter of my fields	69%	1%	17%	13%
Cut or mow selectively to encourage wildflowers in or around my fields	24%	3%	52%	21%
Install nesting blocks or other nesting materials for wild bees near my fields	16%	9%	54%	21%
Intentionally leave standing deadwood to provide nesting sites for wild bees	60%	0%	27%	13%
Monitor the number of wild bees in my fields	35%	4%	40%	21%
Identify groups of wild bees (e.g. honeybees, bumblebees, leafcutter, sweat, and/or sand bees) in my fields	25%	3%	51%	21%
Alter my pesticide use by applying only pesticides that are known to be least toxic to managed or wild bees	52%	1%	27%	20%
Alter my pesticide use by applying only in the early morning or late evening to reduce harm to wild or managed bees	56%	1%	19%	24%
Refrain from applying any pesticides on my fields during blueberry bloom	61%	3%	13%	23%

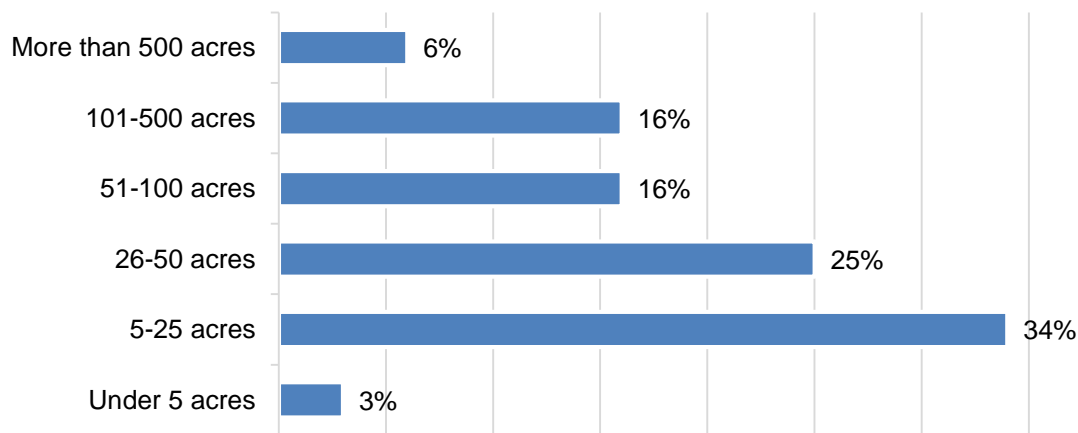
## Section D. Communication about Blueberry Management

Please estimate the number of times you have communicated with each organization about blueberry management in the last two years. Please also estimate how useful the information was for you.

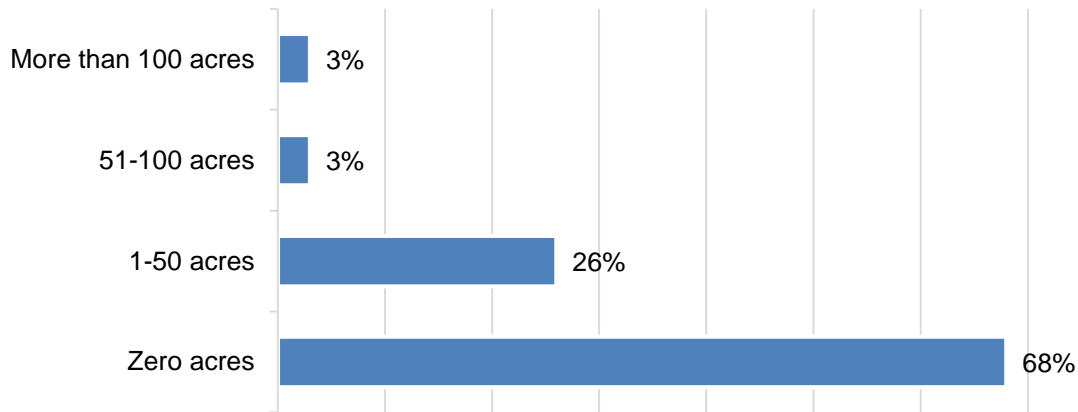
Organization (# of growers who reported communicating with each organization is listed in parentheses)	Mean rating out of 5pts	Very Useful	Somewhat useful	Neither	Somewhat un-useful	Not useful
Blueberry processor (n=48)	4.53	64%	30%	4%	0%	2%
PEI Department of Agriculture (n=42)	4.59	63%	32%	5%	0%	0%
PEI Wild Blueberry Growers Association (n=40)	4.40	45%	53%	0%	2%	0%
Agricultural chemical company (n=20)	4.55	55%	45%	0%	0%	0%
Dalhousie University (Ag College) (n=17)	4.56	56%	44%	0%	0%	0%
Wild Blueberry Association of North American (WBANA) (n=15)	4.20	46%	40%	7%	0%	7%
Blueberry or other fruit cooperative (n=13)	4.31	61%	23%	8%	0%	8%
Syngenta Canada (n=11)	4.40	50%	40%	10%	0%	0%
Agriculture & Agri-Food Canada (n=10)	4.20	30%	60%	10%	0%	0%
PEI Beekeepers' Association (n=9)	4.25	37%	50%	13%	0%	0%
Local watershed group (n=9)	4.33	44%	44%	12%	0%	0%
Perennia (n=8)	4.63	63%	37%	0%	0%	0%
Canadian Food Inspection Agency (n=3)	4.0	67%	0%	0%	33%	0%

## Section E. Grower & Blueberry Enterprise Information

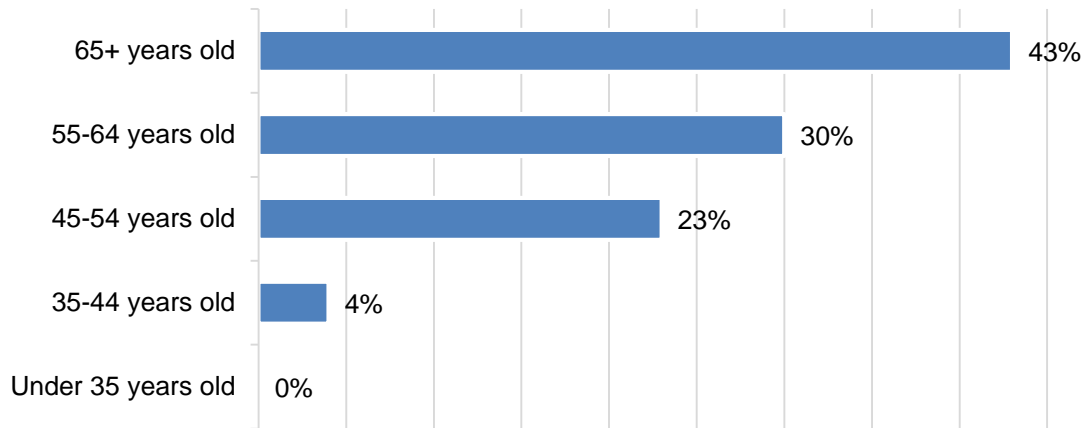
What is the total number of lowbush blueberries that you manage over a two-year period?



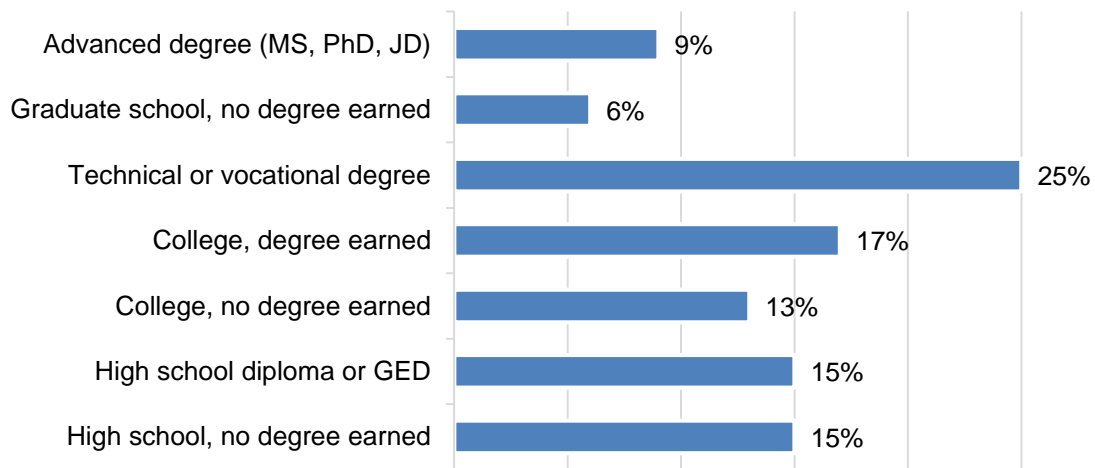
What is the total number of acres that you pollinate with wild bees alone (i.e., without commercial bees)?



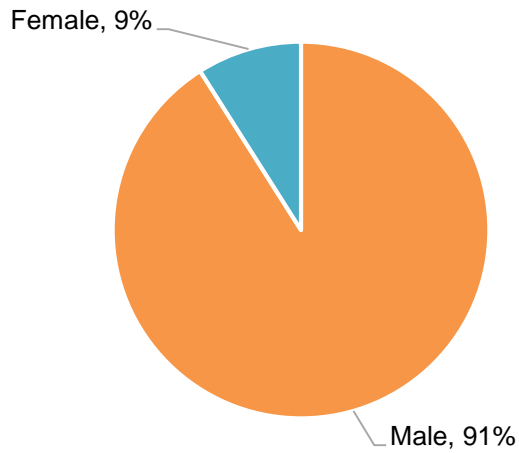
What is your age?



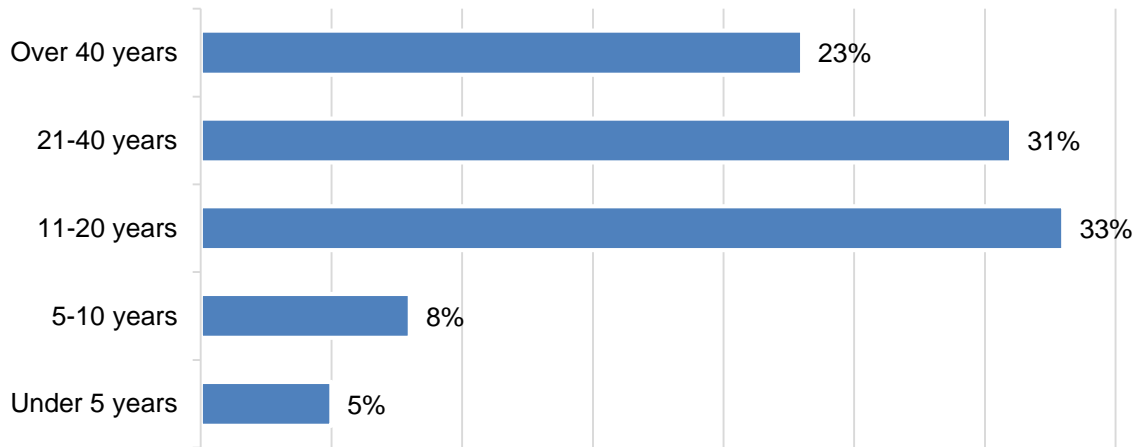
What level of formal education have you completed?



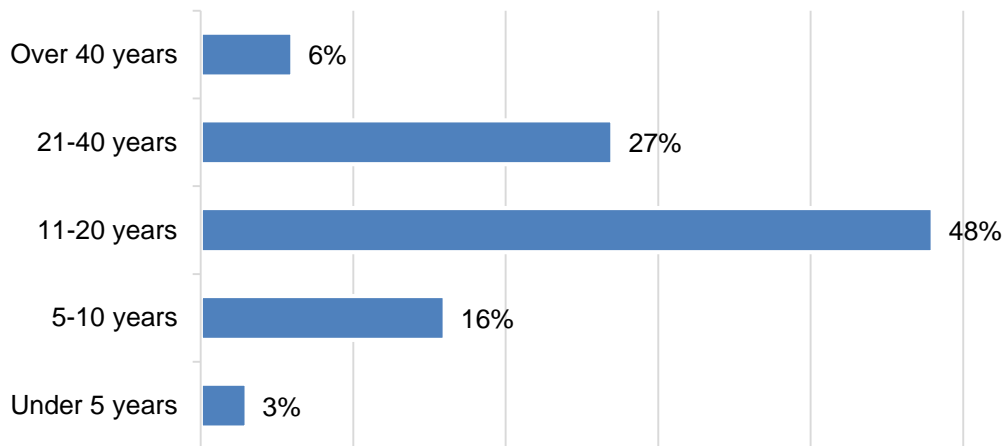
### What is your gender?



### How many years have you been working in agriculture?

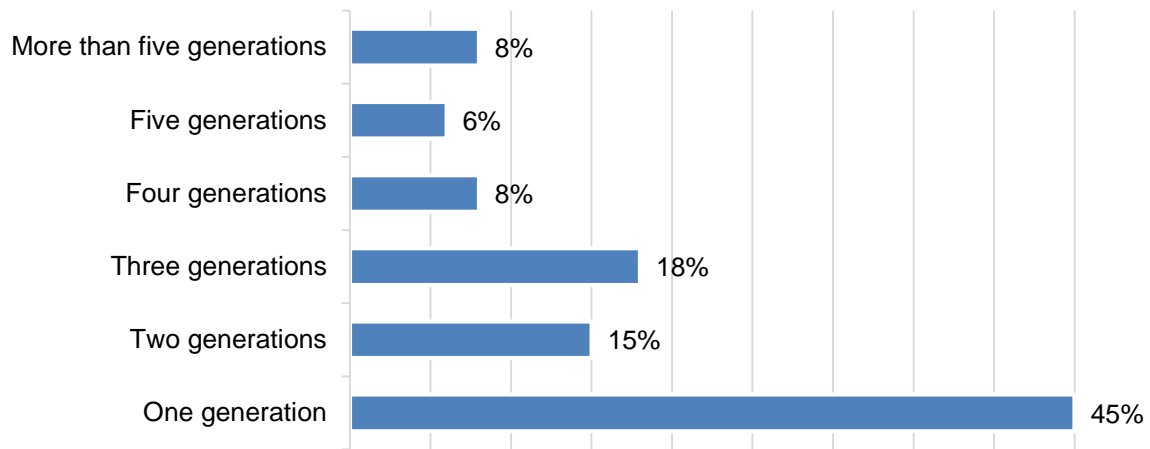


### How many years have you been growing lowbush blueberries?

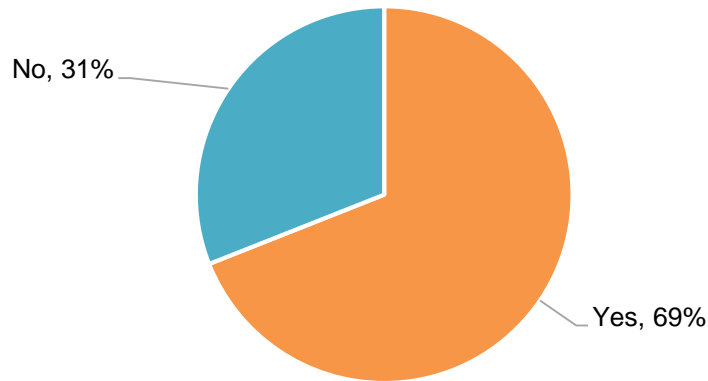




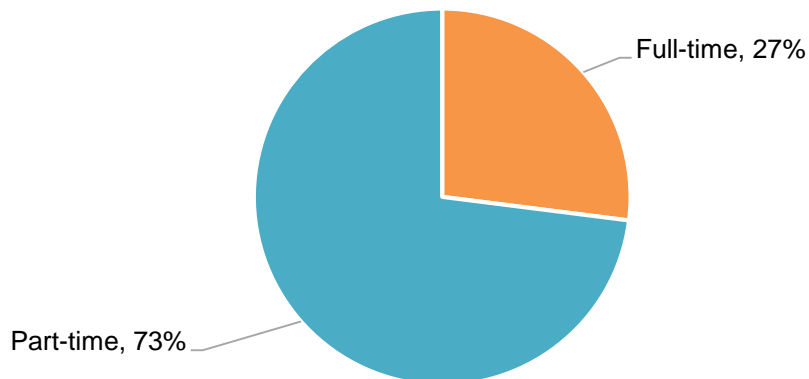
### How many generations has your family been involved in agriculture?



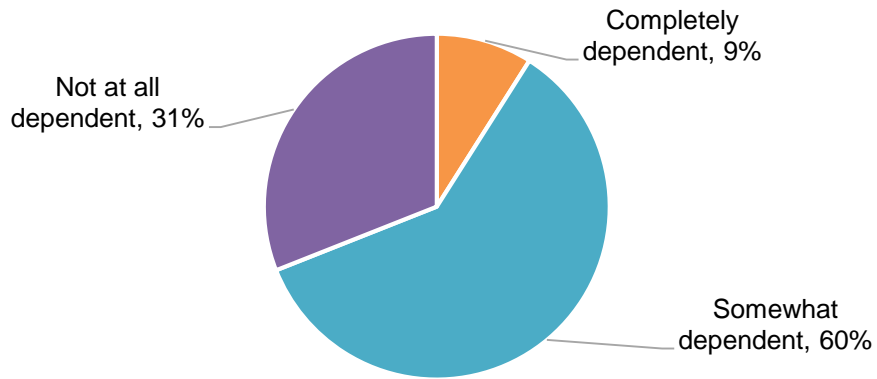
### Do you have an occupation outside of farming?



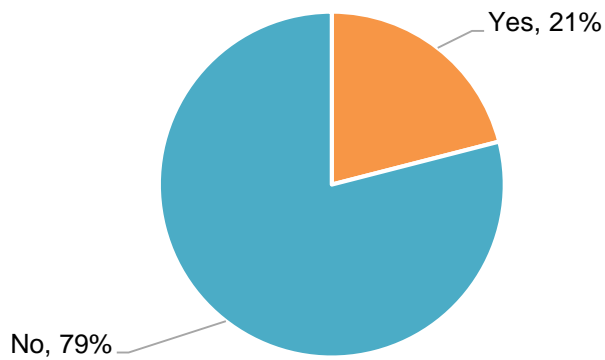
### Do you consider yourself a full-time or part-time blueberry grower?



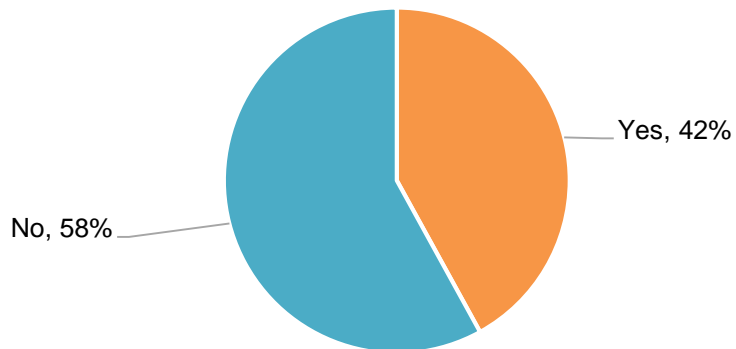
How dependent is your economic livelihood on the success of your blueberry enterprise?



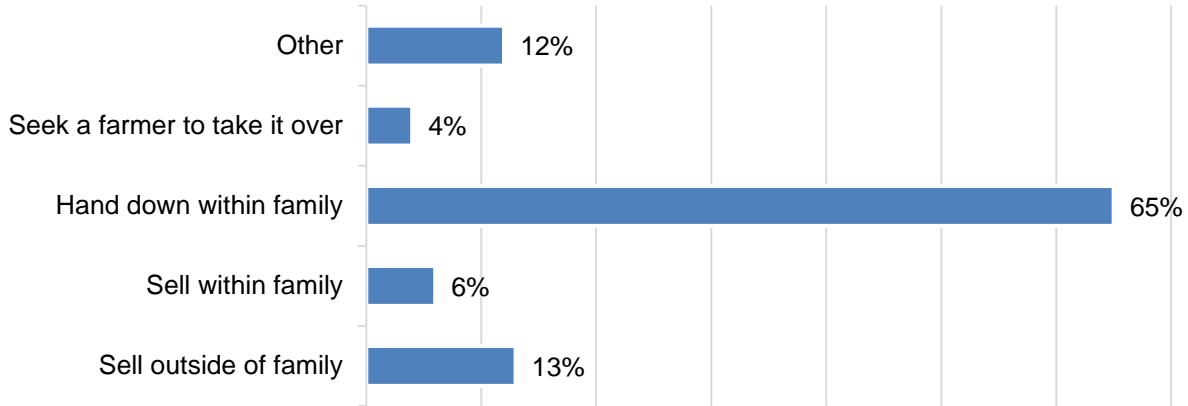
Have you developed a written plan or succession plan to transfer your farm or operation to the next generation?



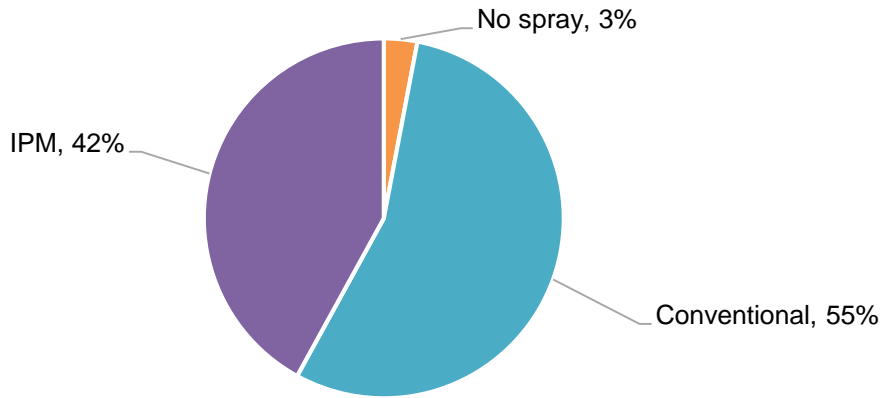
Have you worked an agency consultant to develop a nutrient management plan for your farm?



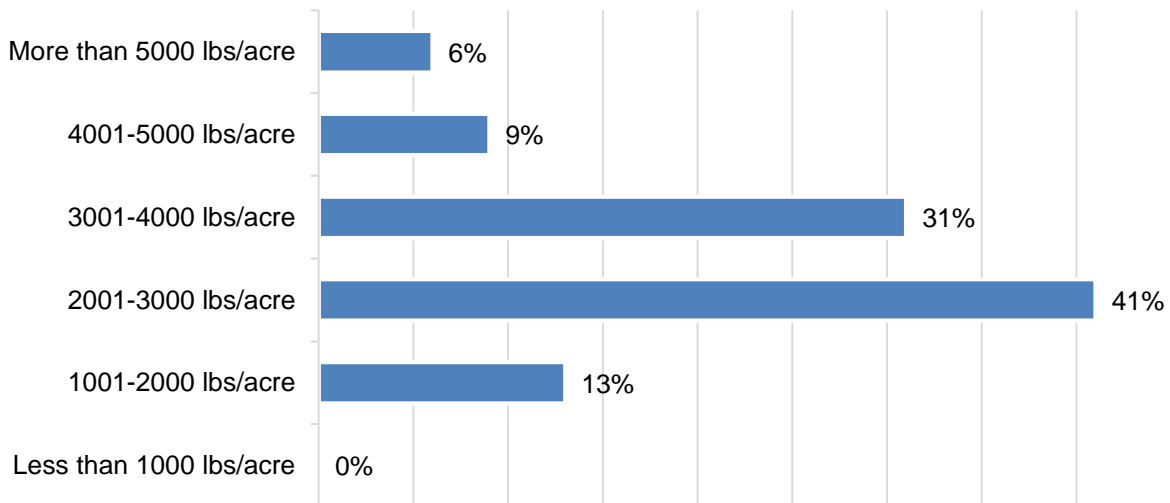
### What are your plans for your farm or lowbush blueberry enterprise?



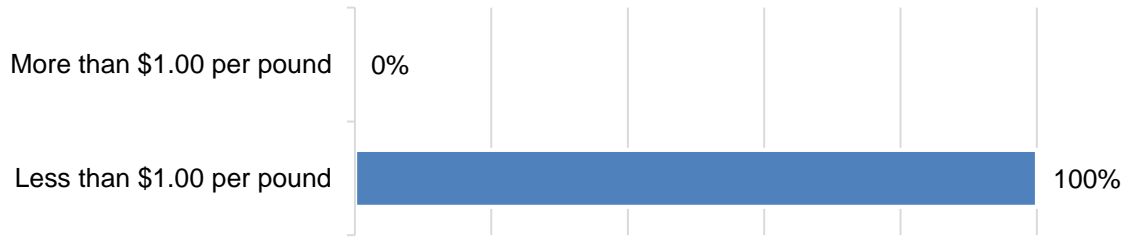
### What is your pest management style?



### What is your average yield per acre over the last five years?



What were you paid per pound for your blueberries in 2015?



Do you sell some or all of your blueberries to a blueberry processing company?

