

SUMMARY REPORT

2015 MAINE WILD BLUEBERRY GROWER SURVEY



Photo by Greg A. Hartford

Research Project Sponsors:



United States Department of Agriculture
National Institute of Food and Agriculture



About the survey

The 2015 Maine Wild Blueberry Grower Survey was administered by researchers at the University of Maine during the winter of 2015/2016. The survey was funded by a grant from the USDA Specialty Crop Research Initiative (SCRI) and was mailed to 374 Maine lowbush blueberry growers. Forty-nine survey recipients were not eligible to complete the survey. Of the 325 eligible participants, **161 lowbush blueberry growers returned a completed survey**, for a 49.5% 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.

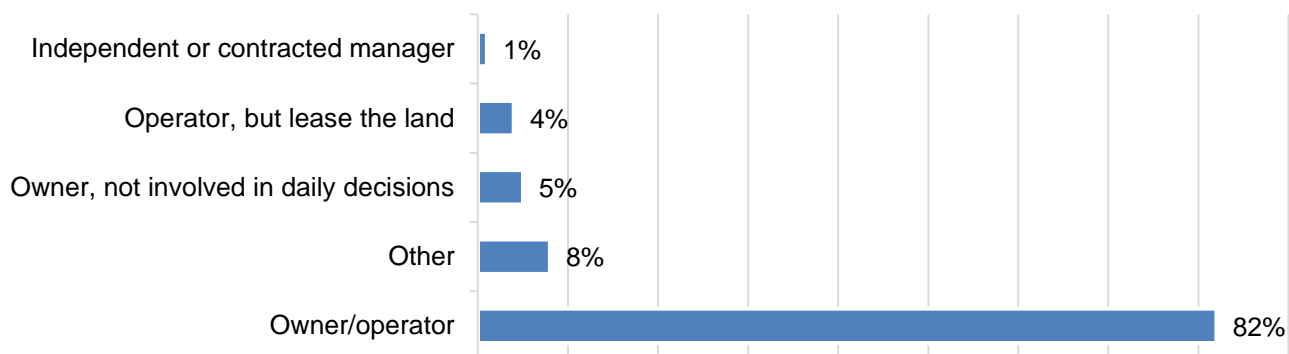
Thank you to all who participated in this study! If you have questions about the results, please contact the research project directors:

Kourtney Collum, Professor
Sustainable Agriculture and Food Systems
College of the Atlantic
kcollum@coa.edu
734.625.0794

Samuel Hanes, Assistant Professor
Department of Anthropology
University of Maine
samuel.hanes@umit.maine.edu
207.581.1885

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	County	Percent	County	Percent
Washington	37%	Lincoln	6%	Penobscot	2%
Hancock	23%	Cumberland	3%	Aroostook	1%
Knox	14%	Oxford	2%	Kennebec	1%
Waldo	8%	Franklin	2%	Sagadahoc	1%

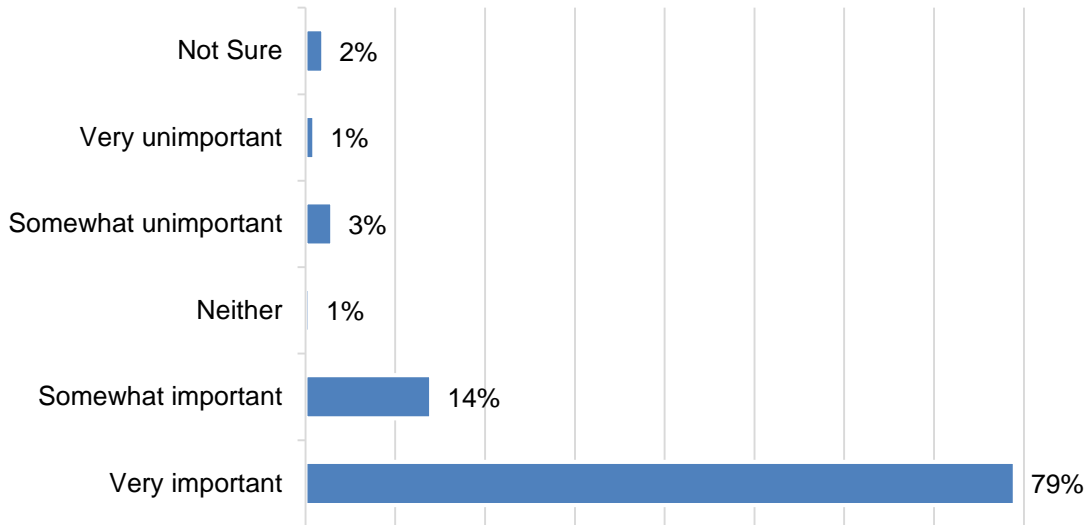
Section B. Blueberry Outreach & Education Programs

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?

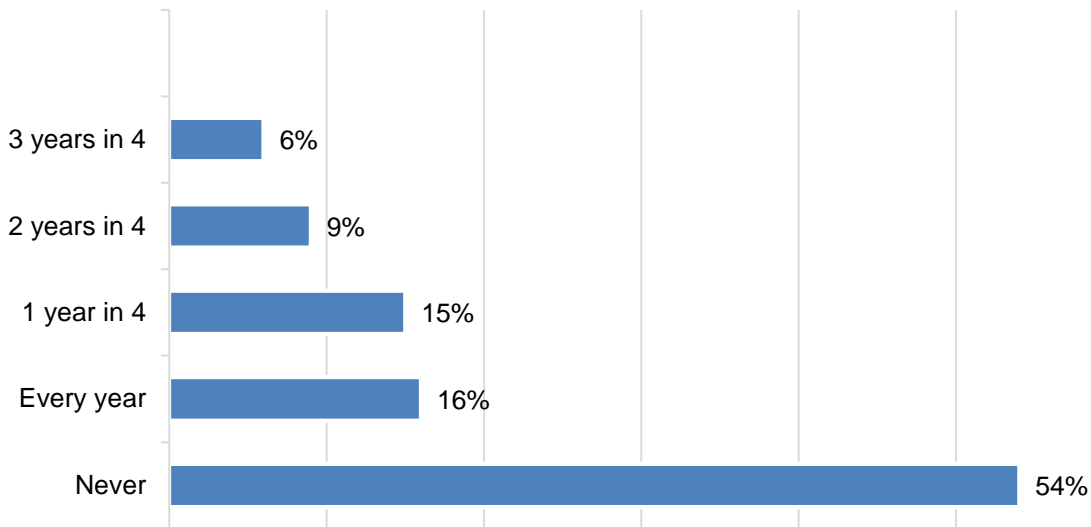
Organization	Read organization newsletter	Accessed organization internet resources	Attended field meeting	Attended classroom meeting	Spoke with organization staff
UMaine Cooperative Extension	84%	58%	64%	49%	50%
Natural Resources Conservation Service (NRCS)	17%	9%	1%	1%	1%
Maine Organic Farmers and Gardeners Association (MOFGA)	24%	17%	7%	4%	12%
Wild Blueberry Commission	44%	19%	12%	9%	23%
Wild Blueberry Association of North America (WBANA)	30%	11%	6%	4%	9%
Maine State Beekeepers Association	11%	6%	3%	3%	4%
Acadia Blueberry Price Report	6%	2%	0%	0%	3%

Section C. Pollination Management

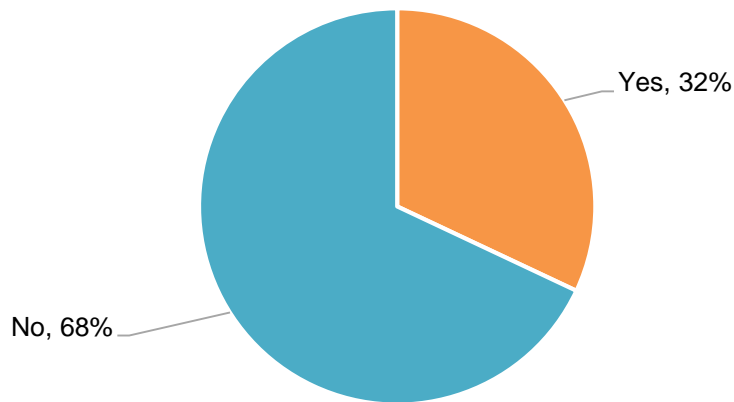
How important do you think wild bees are for pollinating your blueberry crop?



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>	75%
Average honeybee stocking density (among those who reported using honeybees)	1.49 hives/acre (min=0.1; max=6)
Average price paid per hive for commercial honeybees	\$111 USD
Percent of growers who reported using commercial <u>bumblebees</u>	16%
Average price paid per quad for commercial bumblebees	\$262 USD

Grower Reported Concerns About Pollination

Cost of pollination	40%
Bee health	17%
Availability/reliability of bees	15%
Pesticides	15%
Weather	10%
Abundance of wild bees	10%
Lack of knowledge about pollinators	5%
Development/habitat loss	2%
Success rate of overwintering bees	2%
Government regulations/lack of government support	2%
Poor beekeeping practices	1%

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.

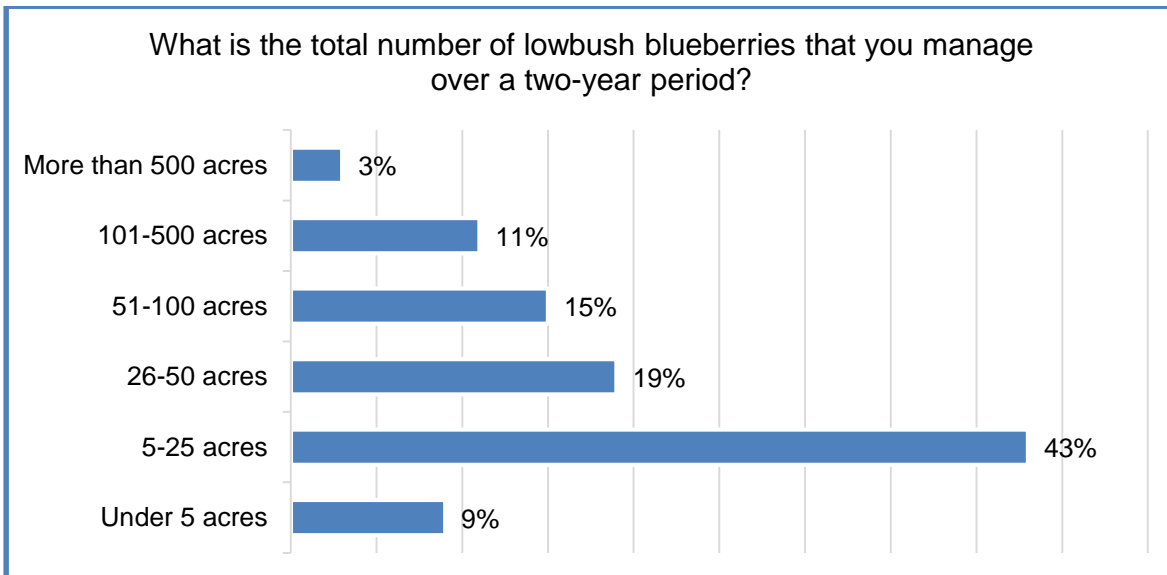
Pollination Management Practice	Currently Use	Tried & Discontinued	Never Used	Did not respond
Rent commercial honeybees	67%	10%	19%	4%
Keep my own commercial honeybees	10%	14%	60%	16%
Purchase leafcutter bees	0%	1%	76%	23%
Keep my own leafcutter bees	4%	2%	72%	22%
Purchase commercial bumblebees	16%	12%	55%	17%
Plant pollinator plantings or other bee-friendly plants near my fields	20%	1%	62%	17%
Allow wildflowers to grow in my fields	35%	3%	44%	18%
Allow wildflowers to grow around the perimeter of my fields	62%	4%	22%	12%
Cut or mow selectively to encourage wildflowers in or around my fields	34%	3%	47%	16%
Install nesting blocks or other nesting materials for wild bees near my fields	19%	9%	58%	14%
Intentionally leave standing deadwood to provide nesting sites for wild bees	44%	0%	43%	13%
Monitor the number of wild bees in my fields	30%	6%	51%	13%
Identify groups of wild bees (e.g. honeybees, bumblebees, leafcutter, sweat, and/or sand bees) in my fields	26%	6%	54%	14%
Alter my pesticide use by applying only pesticides that are known to be least toxic to managed or wild bees	53%	1%	30%	16%
Alter my pesticide use by applying only in the early morning or late evening to reduce harm to wild or managed bees	47%	2%	31%	20%
Refrain from applying any pesticides on my fields during blueberry bloom	62%	1%	21%	16%

Section D. Communication about Blueberry Management

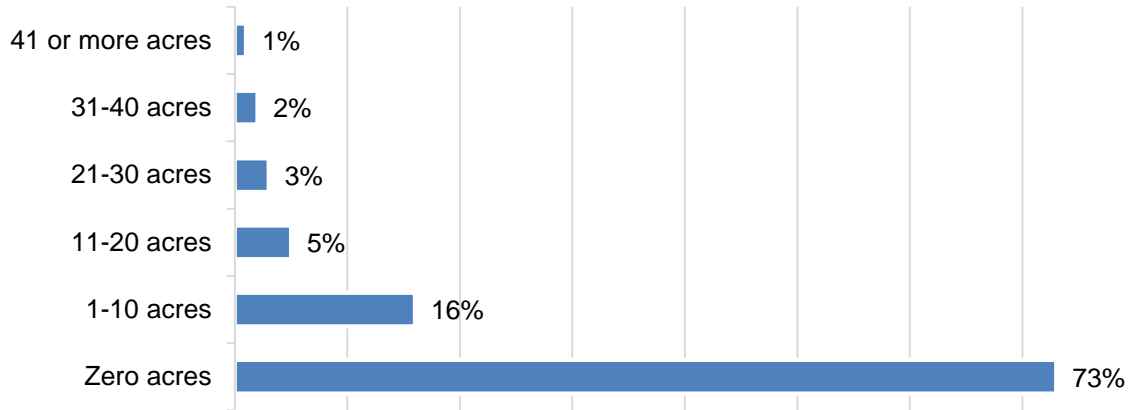
Please estimate the number of times you have communicated with each organization about blueberry management in the last two years. Please also estimate how useful the information was for you.

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
UMaine Cooperative Extension (n=99)	4.72	82%	13%	3%	0%	2%
Blueberry processor (n=72)	4.61	67%	30%	0%	3%	0%
Natural Resources Conservation Service (NRCS) (n=42)	4.55	67%	21%	12%	0%	0%
Maine Board of Pesticide Control (n=39)	4.41	62%	24%	8%	3%	3%
Agricultural chemical company (n=38)	4.61	70%	22%	8%	0%	0%
Wild Blueberry Commission (n=33)	4.48	66%	24%	7%	0%	3%
Maine Organic Farmers and Gardeners Association (n=31)	4.27	52%	31%	10%	7%	0%
Blueberry or other fruit cooperative (n=22)	4.5	60%	30%	10%	0%	0%
Wild Blueberry Association of North America (WBANA) (n=20)	4.44	56%	33%	11%	0%	0%
Xerces Society for Invertebrate Conservation (n=8)	4.86	86%	14%	0%	0%	0%
Maine DEP (n=6)	3.88	40%	20%	20%	20%	0%
Maine State Beekeepers Association (n=5)	4.50	50%	50%	0%	0%	0%

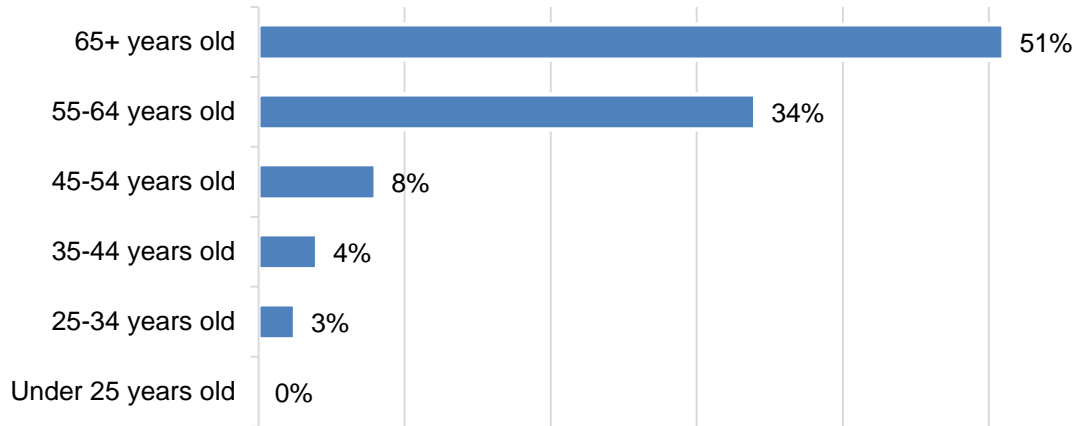
Section E. Grower & Blueberry Enterprise Information



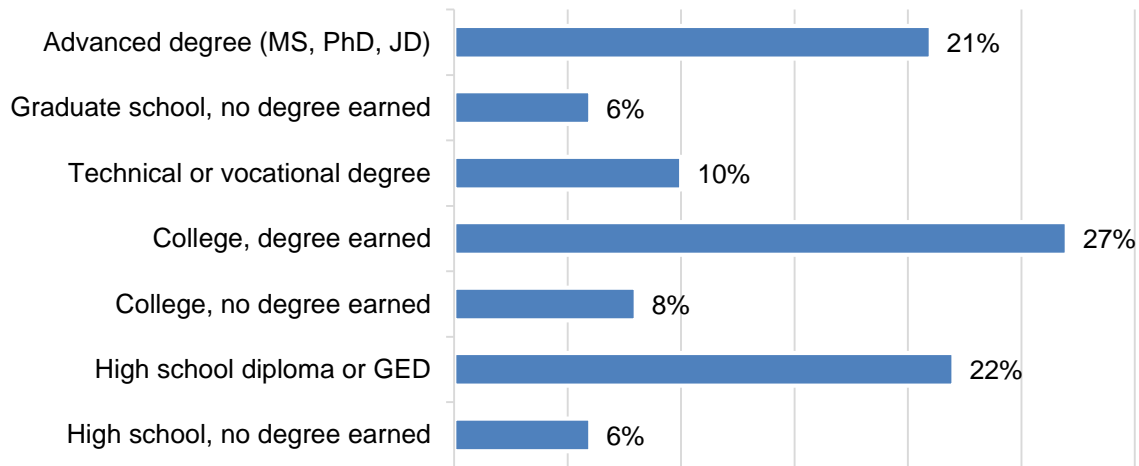
What is the total number of acres that you pollinate with wild bees alone (i.e., without commercial bees)?



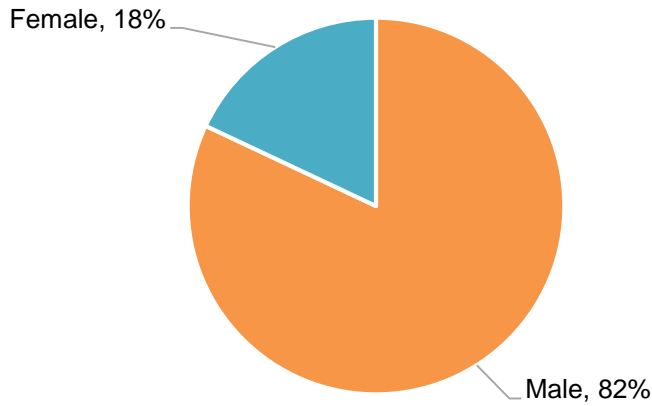
What is your age?



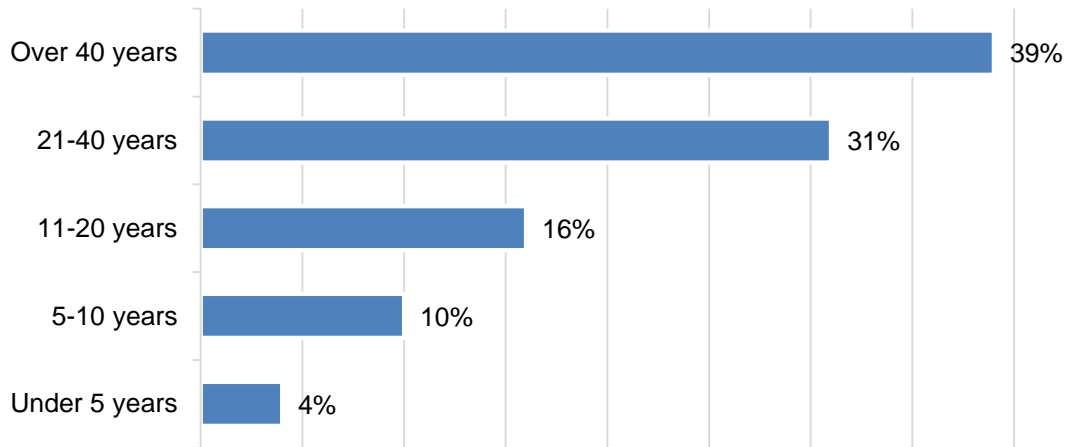
What level of formal education have you completed?



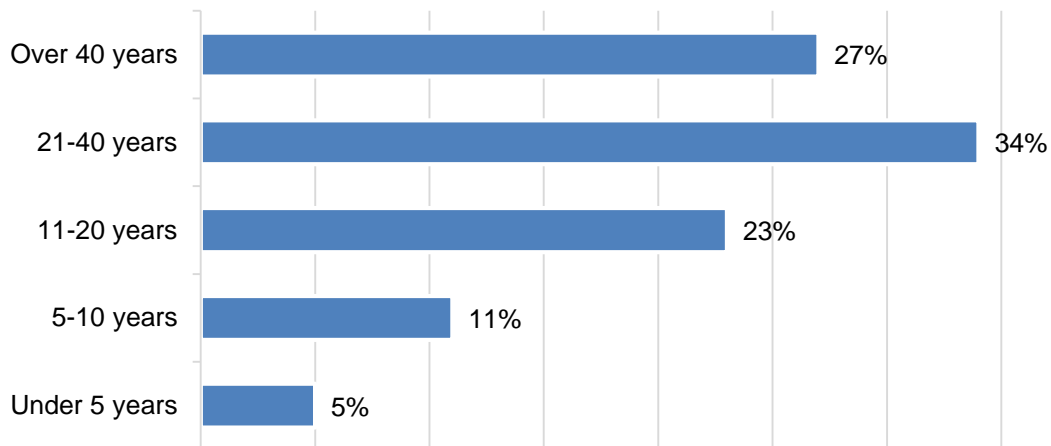
What is your gender?



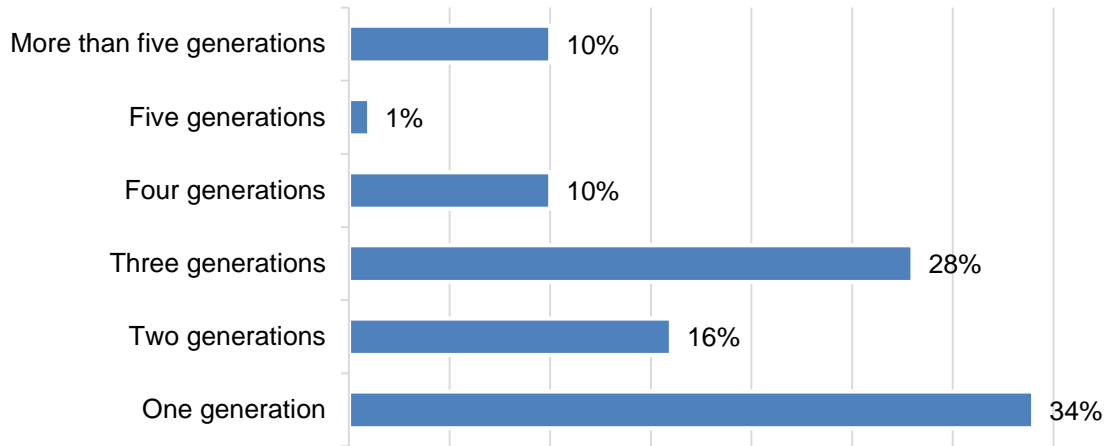
How many years have you been working in agriculture?



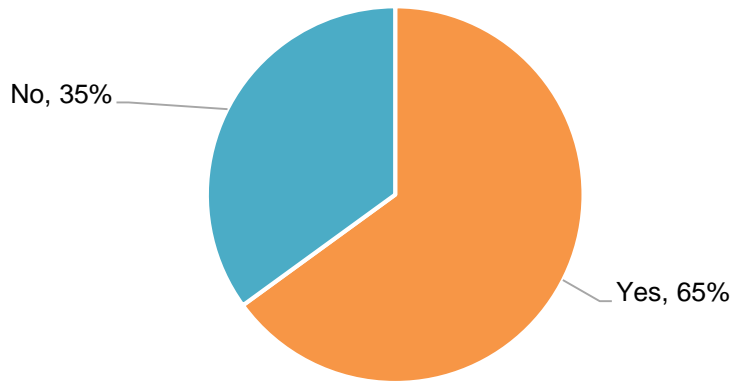
How many years have you been growing lowbush blueberries?



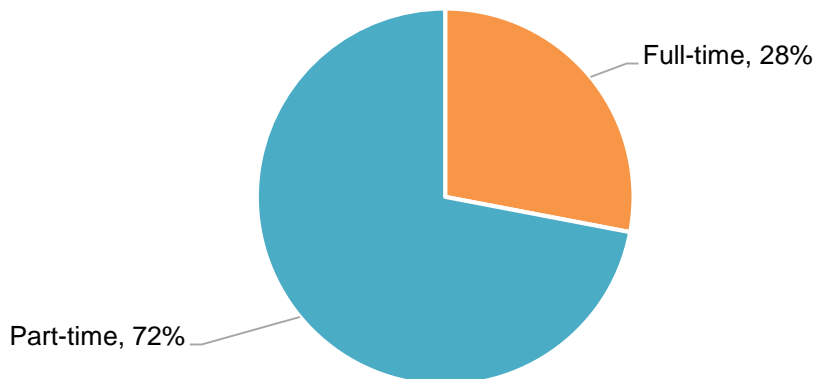
How many generations has your family been involved in agriculture?



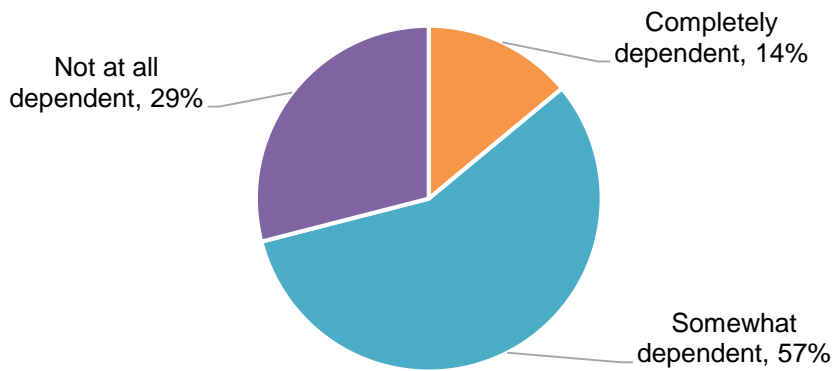
Do you have an occupation outside of farming?



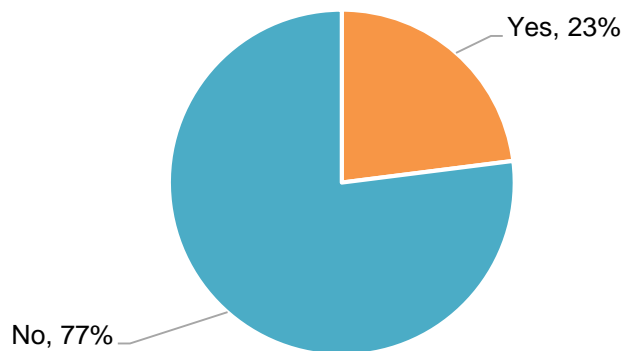
Do you consider yourself a full-time or part-time blueberry grower?



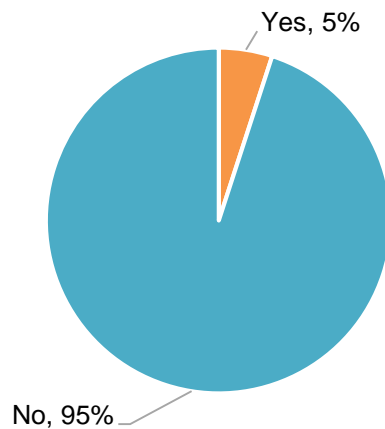
How dependent is your economic livelihood on the success of your blueberry enterprise?



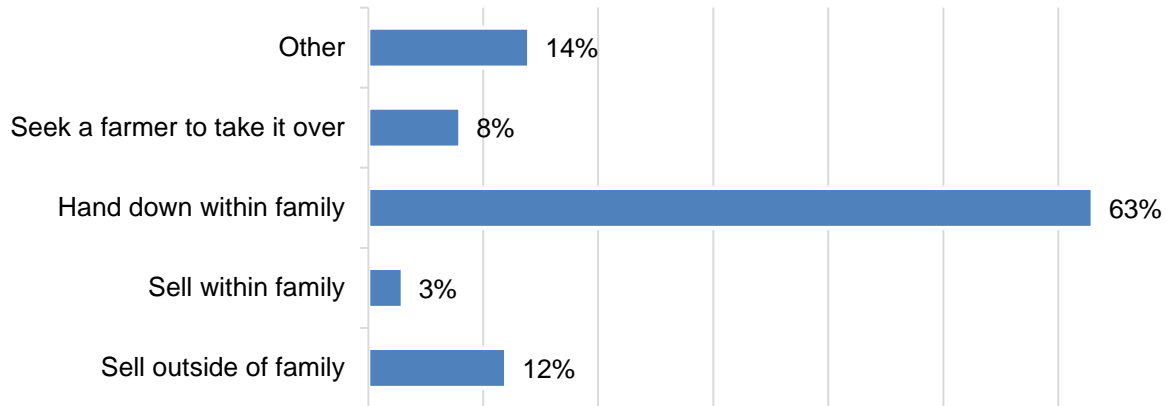
Have you developed a written plan or succession plan to transfer your farm or operation to the next generation?



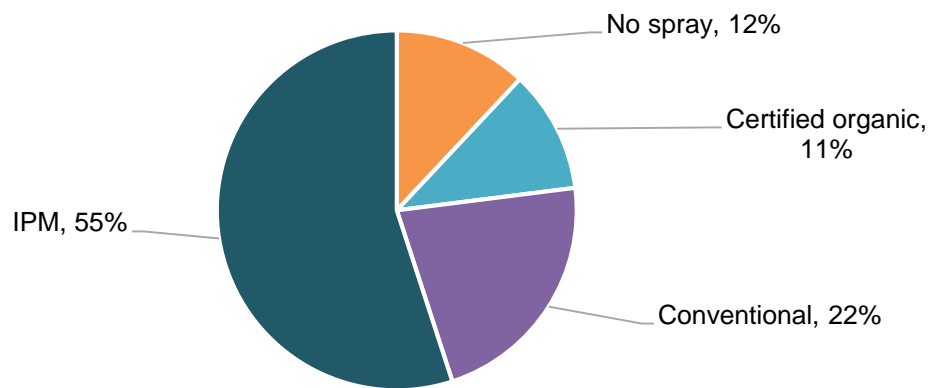
Have you worked with a NRCS certified technical assistance provider (TSP) to develop a pollinator habitat enhancement plan for your farm?



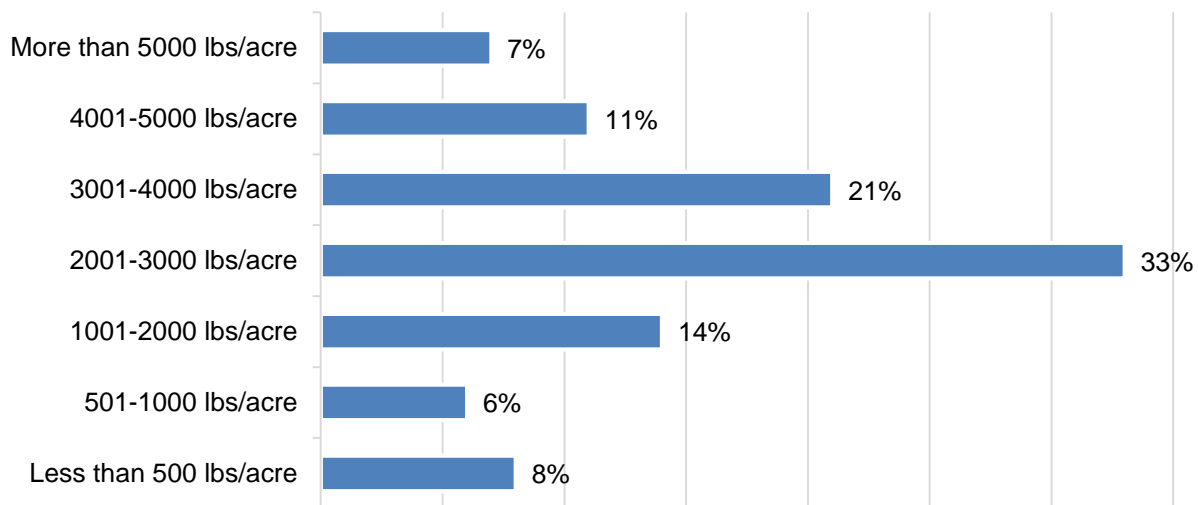
What are your plans for your farm or lowbush blueberry enterprise?



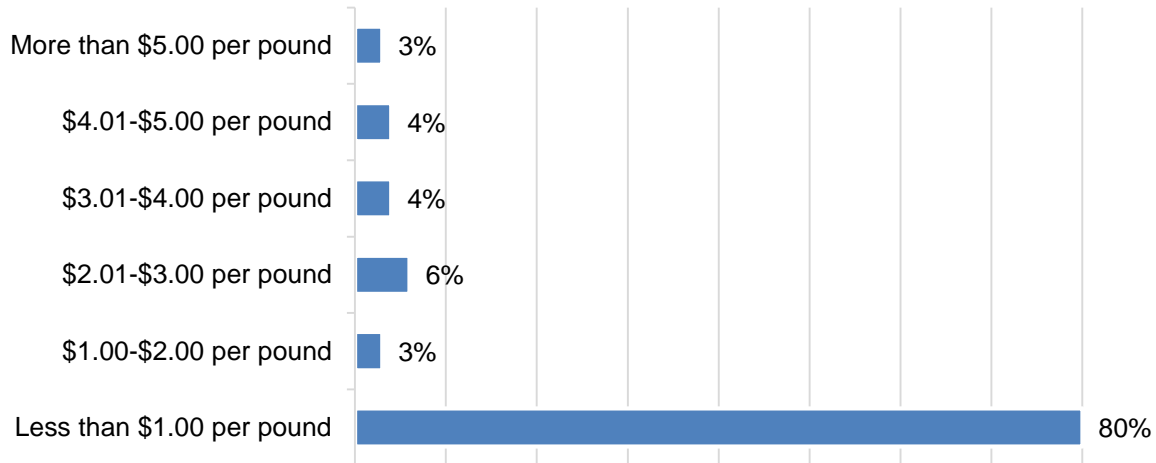
What is your pest management style?



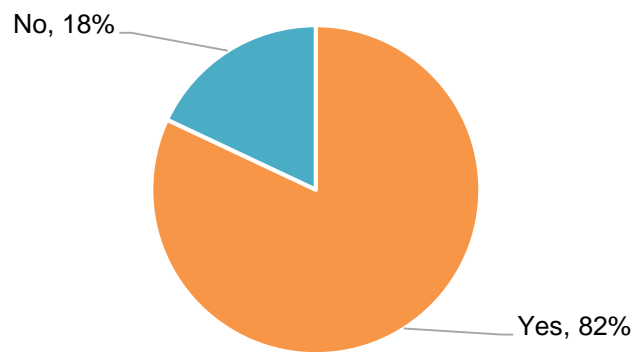
What is your average yield per acre over the last five years?



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?



On average, how many meetings sponsored by UMaine Cooperative Extension do you attend per year?

