MSPB'S MANAGEMENT PRACTICES SURVEY–2014 RESULTS

Osborn Barr, MSPB's communications contractor, recently (Feb.–Mar. 2015) commissioned a survey of Mississippi soybean producers to determine practices they use in producing a crop, and the sources they depend on for production information.

2,200 surveys were distributed by mail to Mississippi soybean producers, and 238 completed surveys were returned. This 10.8% participation rate is in the normal range for an external survey.

Average tilled acres and total soybean acres of each respondent is 1,725 and 1,199, respectively.

Some of the pertinent results from that survey are presented by category.

General Crop Production

Producers who do and do not rotate soybean with another crop are about evenly split (48% do and 52% do not).

Over half (56%) of the respondents recognize that the optimum planting date for soybean in Mississippi is early to late April, and that mid-April to early May is the optimum end date for planting. 54% of the participants almost always or always plant soybeans as early as soil conditions allow.

62% of the respondents plant in rows that are no wider than 20 in.

Yield of a variety is the trait rated most important when selecting a variety, while seed oil/protein content is rated the least important.

Variety selection one of the most-mentioned ways of increasing soybean yields.

The top three soybean issues listed by producer respondents are weed resistance, adequate moisture, and cost of production.

Soil Factors

70% of the respondents test soil for fertility every 1 to 3 years, and 80% take soil samples in the fall.

Slightly less than half (47%) of the respondents know the amounts of nutrients removed from the soil each year.

Two-thirds of the respondents ensure adequate fertility on every soybean acre almost every year.

44% of the respondents who are aware of soybean cyst nematode (SCN) presence in their fields never test for SCN, and another 44% only sometimes test for SCN presence. 59% do not know if SCN is present in their fields.

56% of the producers who don't have SCN infestations in their fields do not test for SCN. Only 33% of these producers sometimes test soil for SCN.

40% of the respondents irrigate soybeans, but a very small percentage of those producers use soil moisture sensors and surge valves. PHAUCET/Pipe Planner is the most-used irrigation management tool.

A low percentage of irrigated producers know the amount of water they are using to irrigate soybean as indicated by the low percentage who use water or flow meters. However, irrigators consider amount of water used for irrigation as important.

Insect and Disease Factors

70% of producer respondents scout or have their fields scouted for pests and weeds on a weekly basis, and almost 60% of the scouting protocol used involves always walking the fields.

40% of the respondents almost always or always use scouting results from the current crop to plan for next year's crop.

56% of the respondents check fields for presence of major diseases on a weekly basis.

Nearly two-thirds (64%) of the respondents almost always or always use practices or make decisions that will manage diseases that are present.

53% of responding producers use a sweep net or drop cloth to make weekly checks for insect presence.

84% of producers almost always or always immediately treat for insects when their numbers reach economic thresholds.

Weed Factors

95% of respondents use 2 or more modes of action when applying herbicides for weed control.

55% of producers almost always or always use pre-plant herbicides to enhance weed management and reduce the risk of selection for herbicide resistance in weed species.

More than 90% of responding producers use the full labeled rate of pesticides most or all of the time.

Production Recommendations

85% of producers who responded are comfortable or very comfortable with recommendations made by agricultural retailers.

Mississippi State University received the top mention as a source of important information for making production decisions.

44% of producers use a crop consultant/adviser at least most of the time, while 41% never one.

General Conclusions

High adoption of early planting and narrow rows and the selection of high-yielding varieties by a majority of producers, as indicated by the survey results, are likely the reasons for increasing soybean yields in Mississippi over the last two decades.

These survey results indicate that increased education about the need to sample soil for SCN is needed. This is especially true since the disease surveys over the last four years indicate that SCN is the soybean pest responsible for the greatest yield loss in Midsouth soybean production systems.

The survey results indicate that increased education about using all irrigation management tools to increase irrigation efficiency and water meters to accurately determine water use by irrigated soybean is needed.

The majority of producers use timely and accurate scouting and timely treatment to manage disease and insect pests in soybean.

The vast majority or respondents use economic thresholds to determine if and when to treat for insect infestations. This indicates that continued research is needed to ensure that threshold numbers are adequate and accurate for the various

soybean production systems in Mississippi.

Producers have obviously taken heed about the importance of weeds developing resistance to herbicides as indicated by the large majority of respondents who use more than one herbicide mode of action, preplant herbicides, and the full labeled rate of herbicides. All of these factors are recommendations to prevent or delay herbicide resistance in weeds.

It is obvious that Mississippi soybean producers have a high regard for the information provided and recommendations made by agricultural retailers in the state. Crop consultants/advisers also provide a valuable service to a large percentage of surveyed producers.

As with all surveys, this survey provides only a sampling of production practices and information sources used by Mississippi soybean producers. However, these results do provide a glimpse into what is being done to produce soybeans in the state, and can provide agricultural practitioners with a clue as to what needs more attention and increased education.

I personally thank each of you 238 respondents who took the time to complete and return the survey. Hopefully, through this blog and other summaries that will come from the survey results, you can see the value of the information you provided and how it can be used to provide insight into what Mississippi soybean producers are now doing or maybe should be doing to continue the trend of increasing soybean yields in the state.

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Avant
MARKETING GROUP

Best Practices Study
AMG1126
Soybean Growers
February 2015

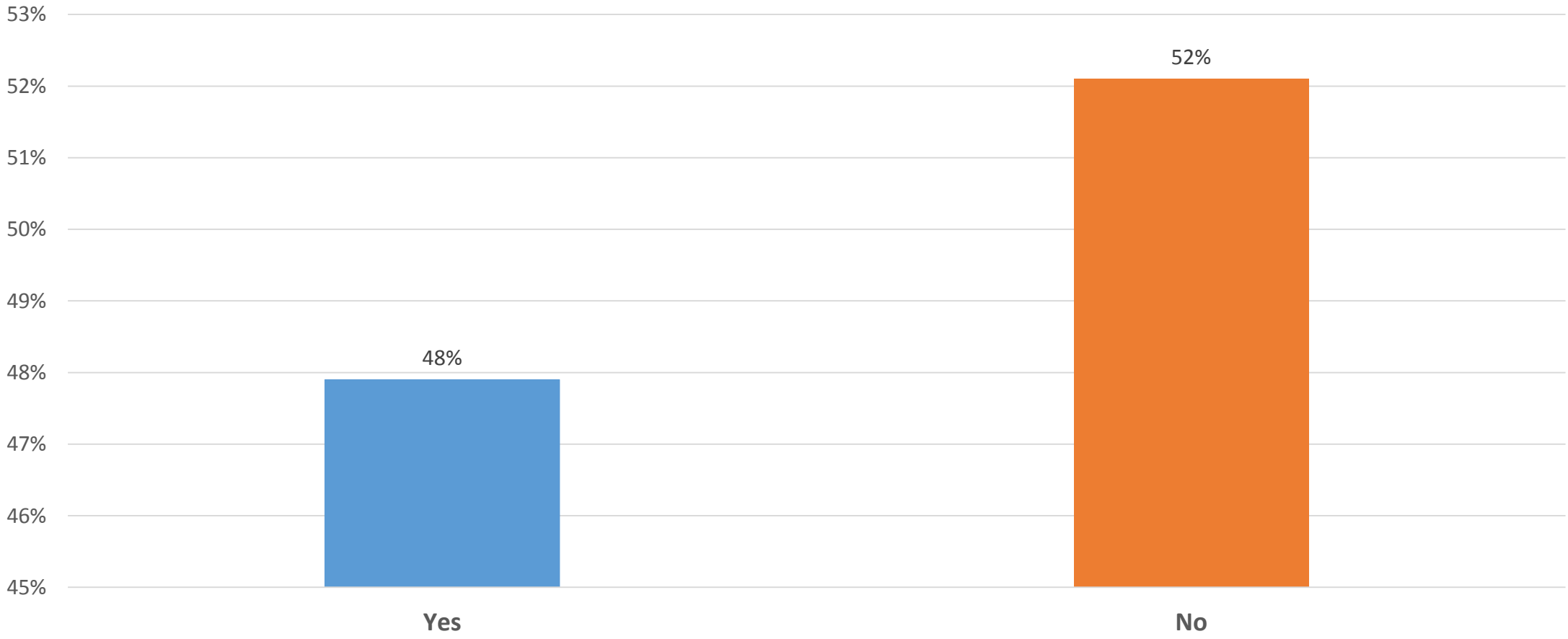
OSBORNBARR

Study Summary

- A mail survey was distributed to soybean farmers in January-February 2015.
- A total of 2,200 surveys were distributed.
- Each mailing included a cover letter, survey, and postage-paid return envelope
- A total of 238 completed surveys were received
- Survey participation equaled 10.8%

Annual Crop Rotation

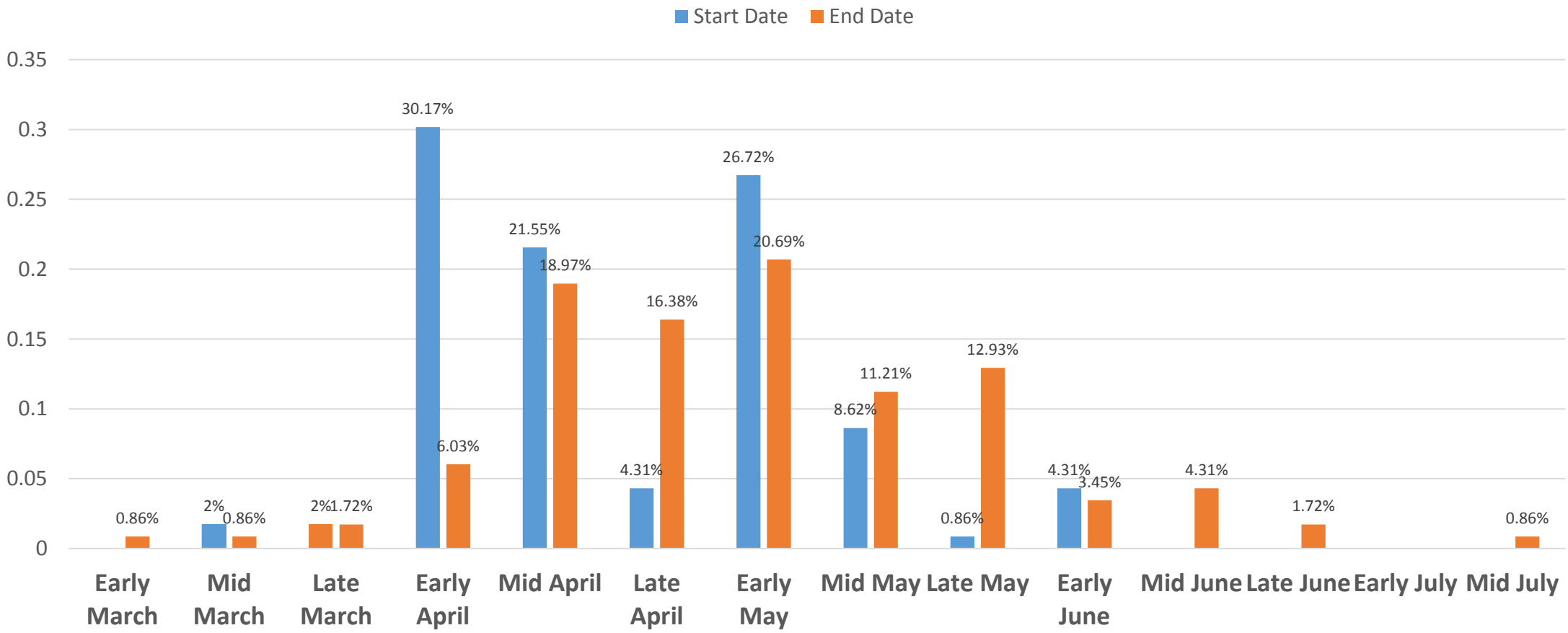
48 percent of participants rotate crops annually.



Q1: Do you rotate crops annually?

Optimal Regional Planting Date – Start and End Dates

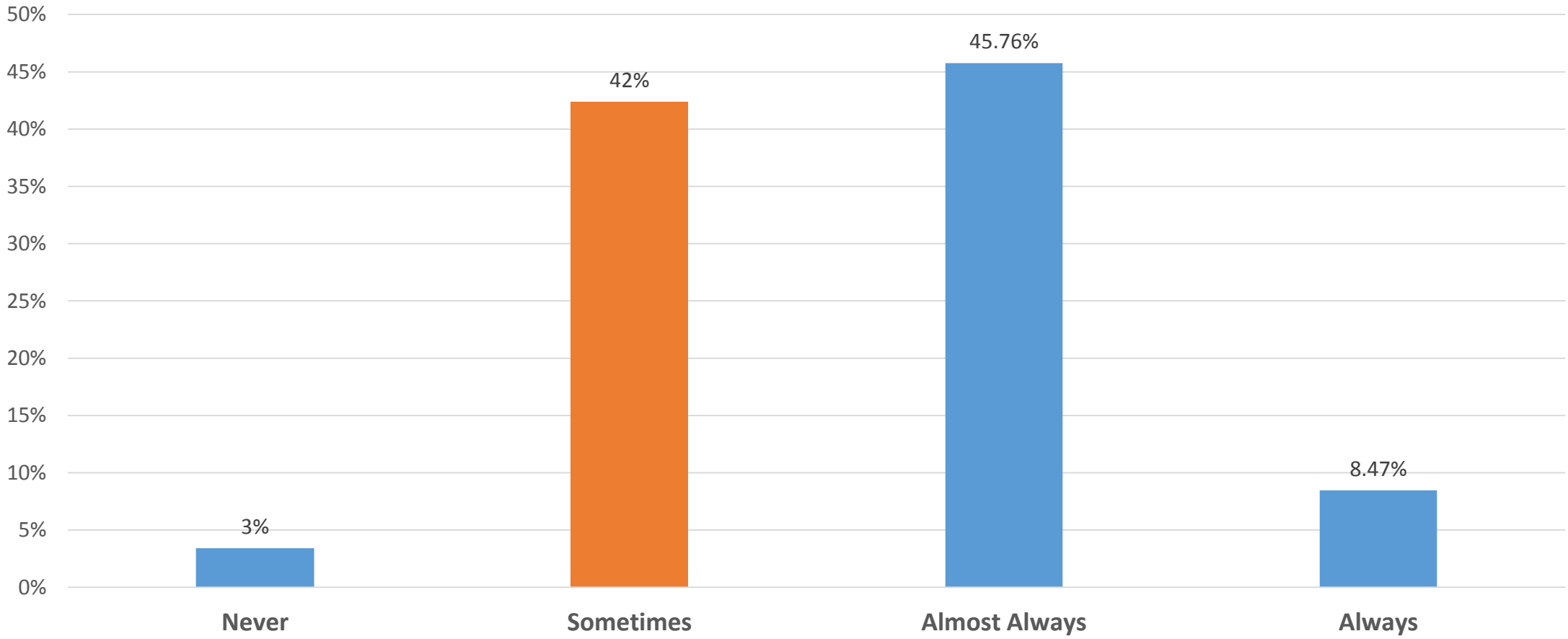
Early April through Early May is defined as the Optimal Planting Date by the highest number of participants.



Q2: Do you know the optimal planting date for your region?

Planting Time

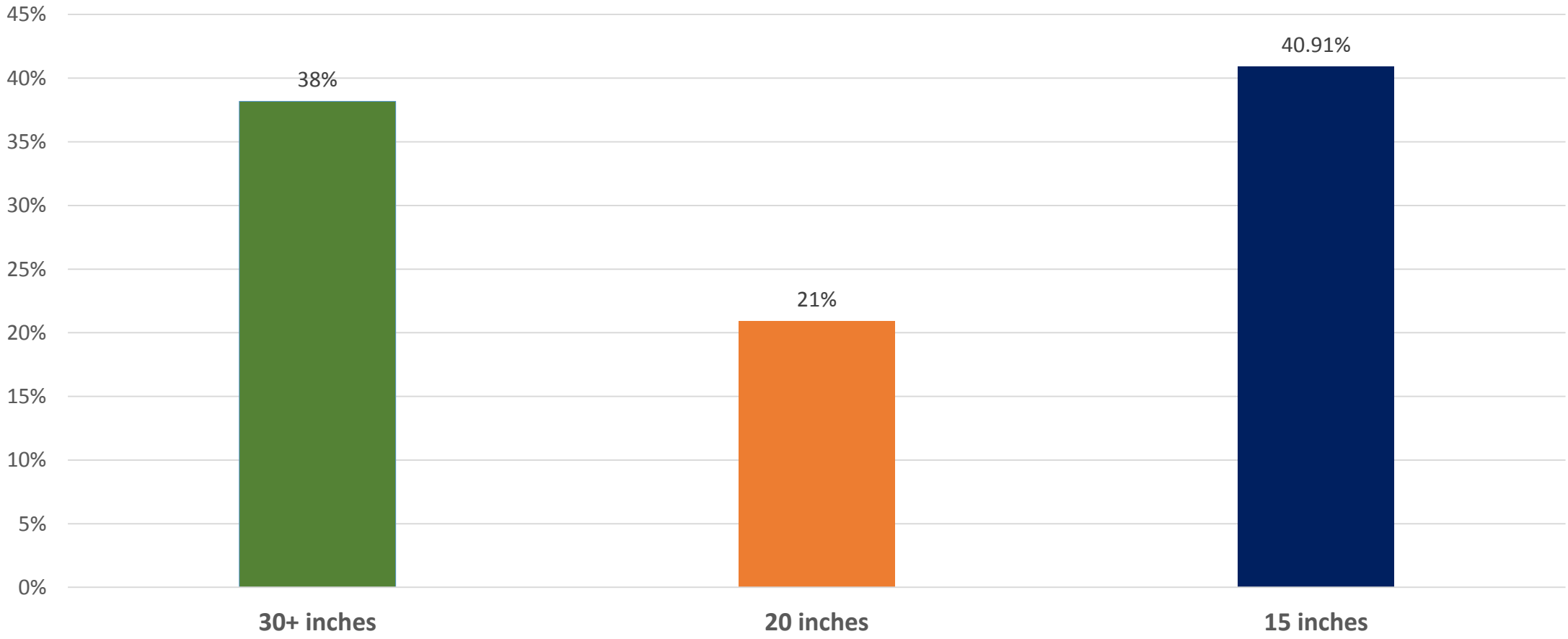
54 percent of participants “almost always” or “always” plant soybeans as early as soil conditions allow.



Q3: Do you plant your soybeans as early as soil conditions allows?

Soybean Row Width

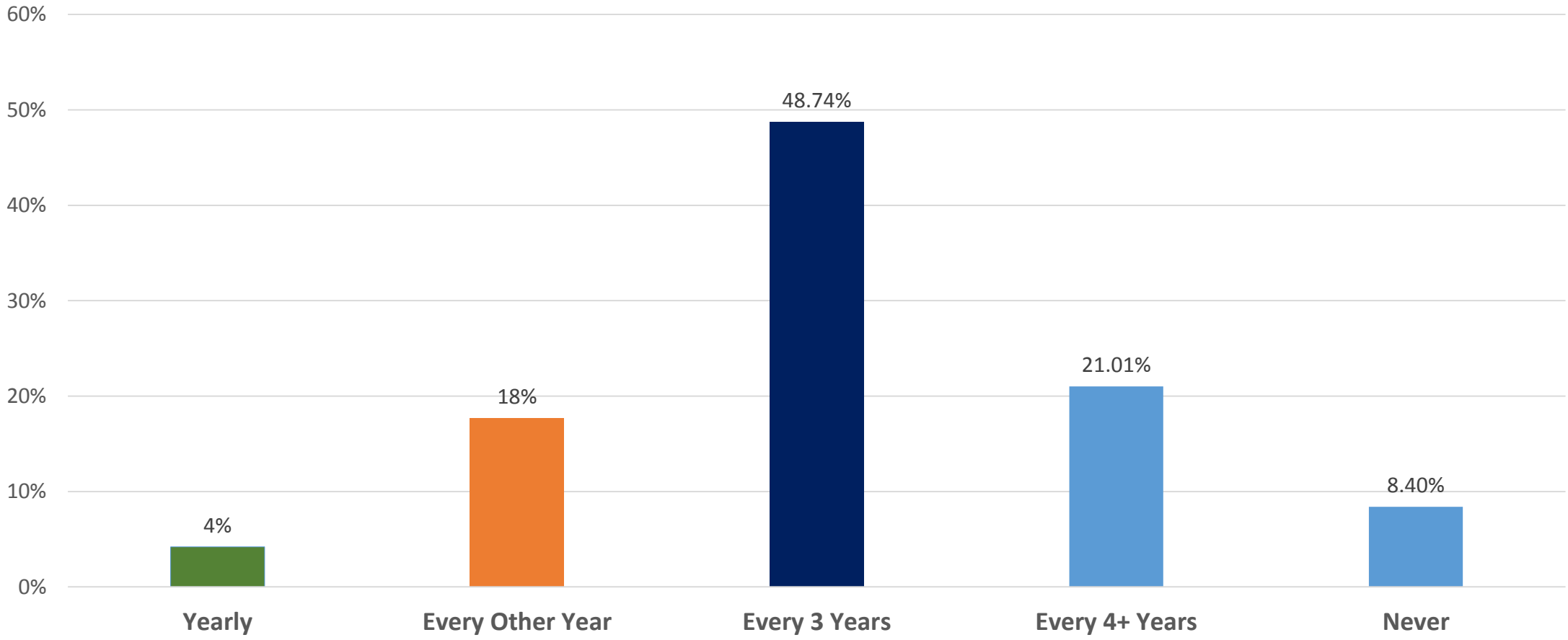
Irrigated acres tend to have wider row widths than non-irrigated acres.



Q4: What row width do you typically use when planting soybeans?

Soil Testing Frequency

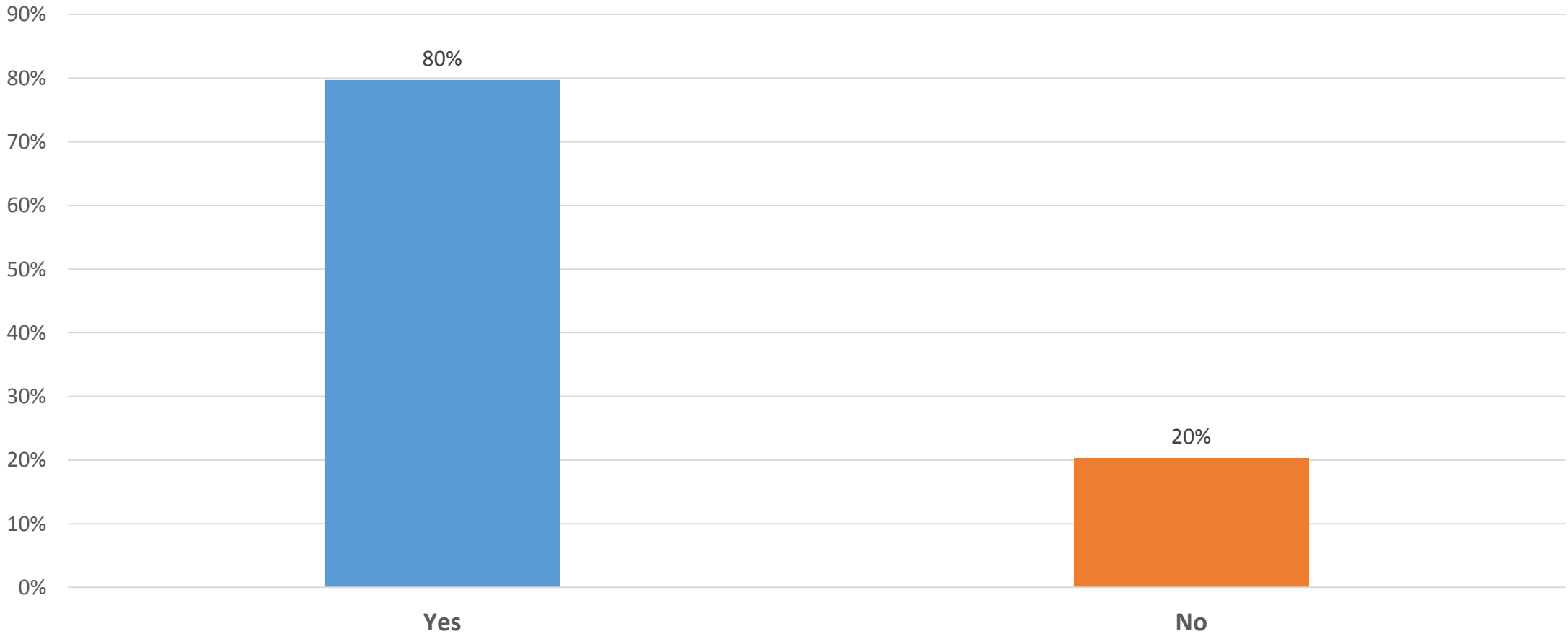
Nearly 50 percent of participants soil test every 3 years.



Q5: How often do you soil test your field for fertility?

Fall Soil Sampling

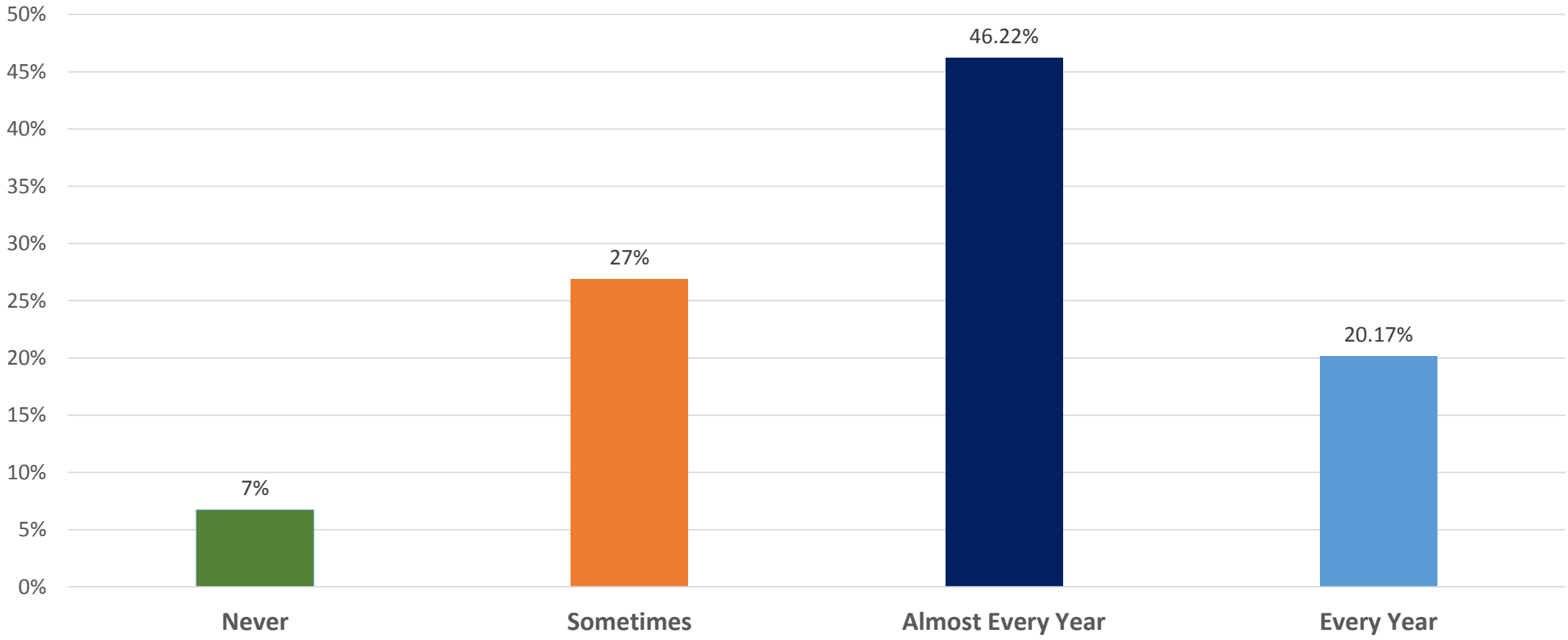
80 percent of participants soil sample in the fall.



Q6: Do you take your soil sample in the fall?

Awareness of Soil pH

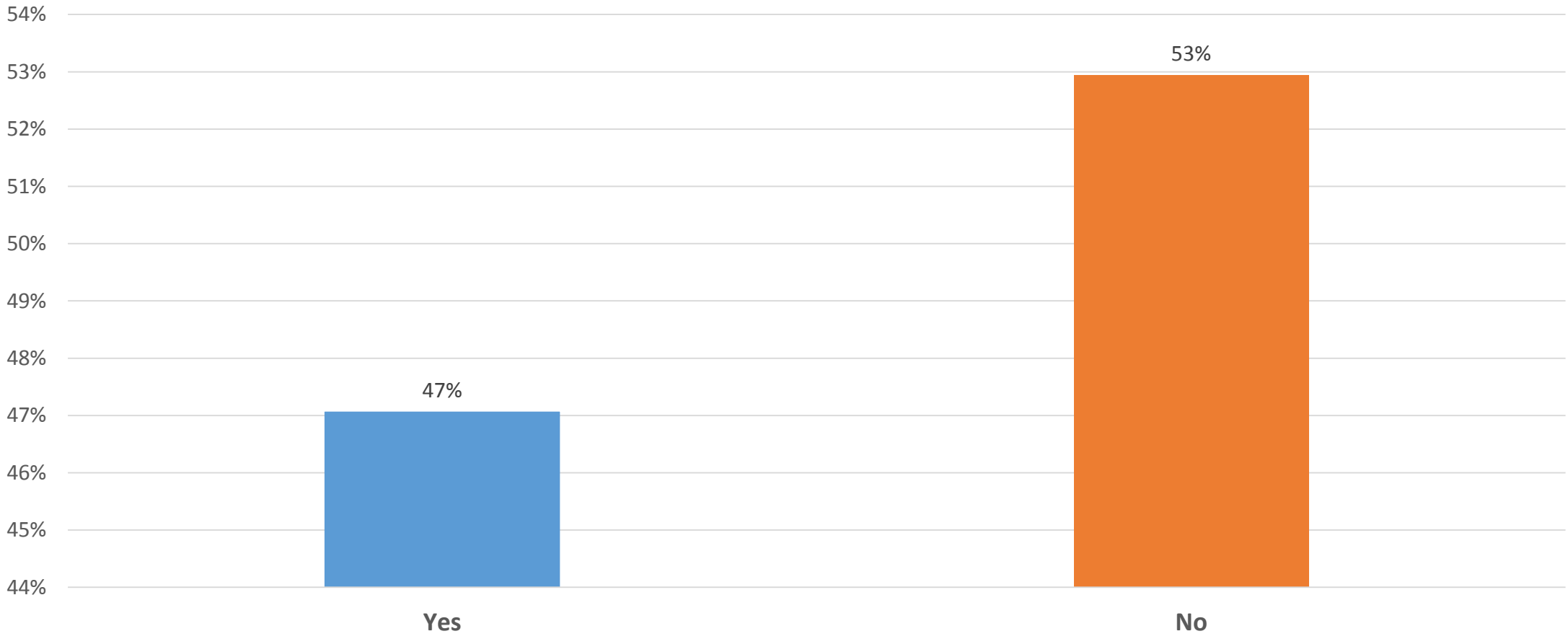
20 percent of participants know their soil pH every year.



Q7: Do you know your soil pH?

Awareness of Nutrient Removal

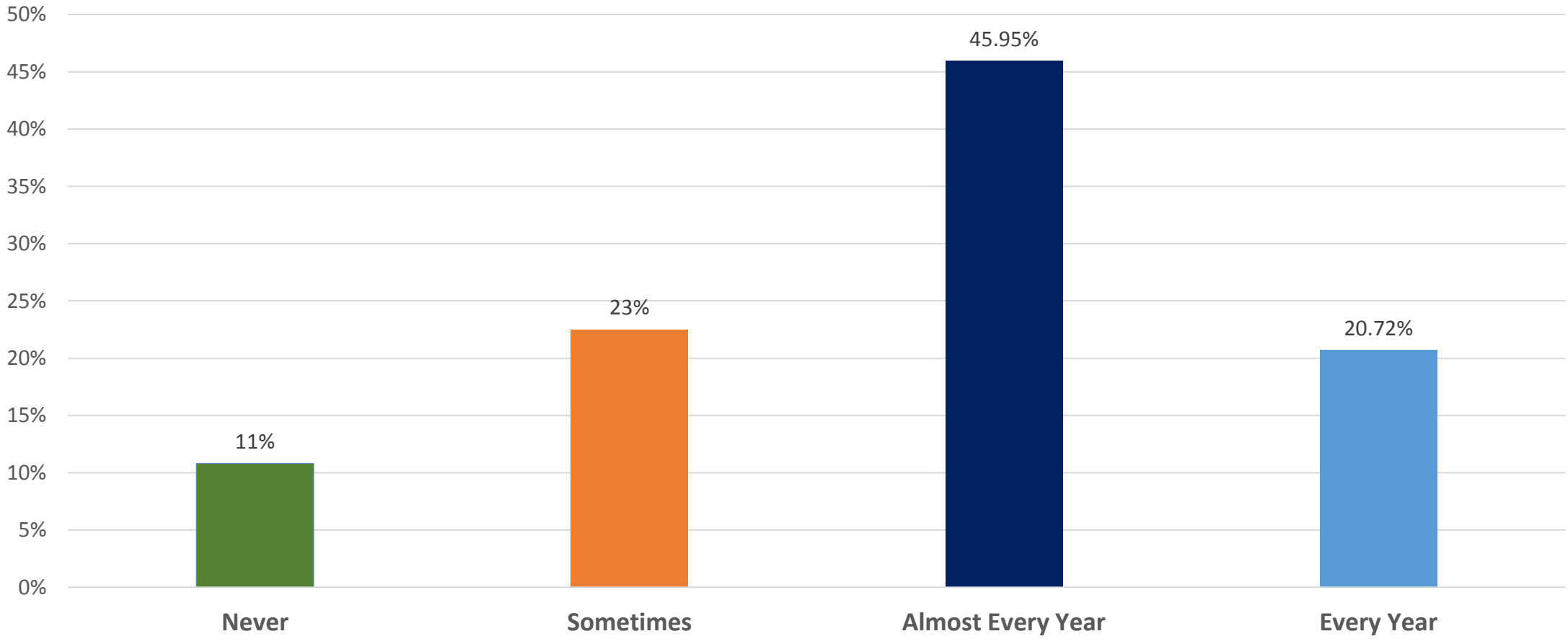
47 percent of participants know annually how much nutrients are removed from the soil.



Q8: Do you know how much nutrients your crops remove from the soil annually?

Adequate Fertility for Soybeans

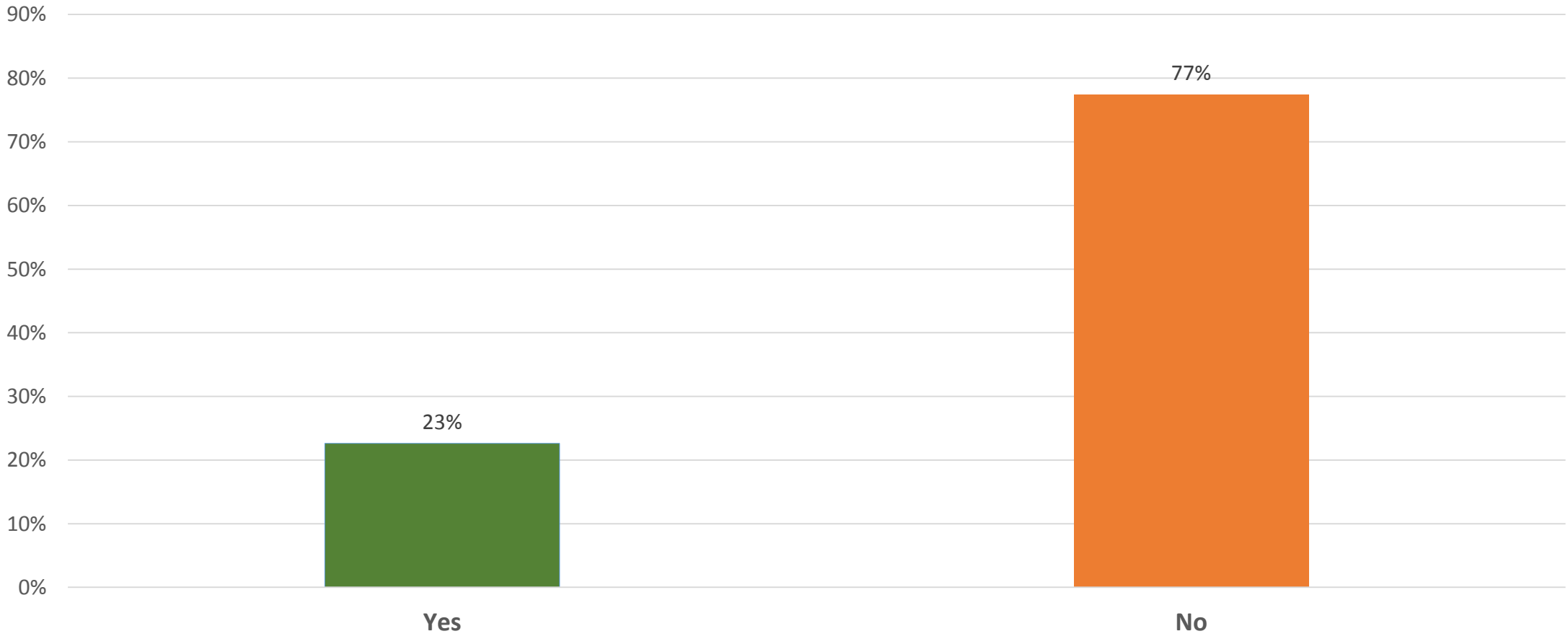
21 percent of participants ensure adequate fertility every year.



Q9: Do you ensure adequate fertility for soybeans is available on every acre?

Existence of Nematodes

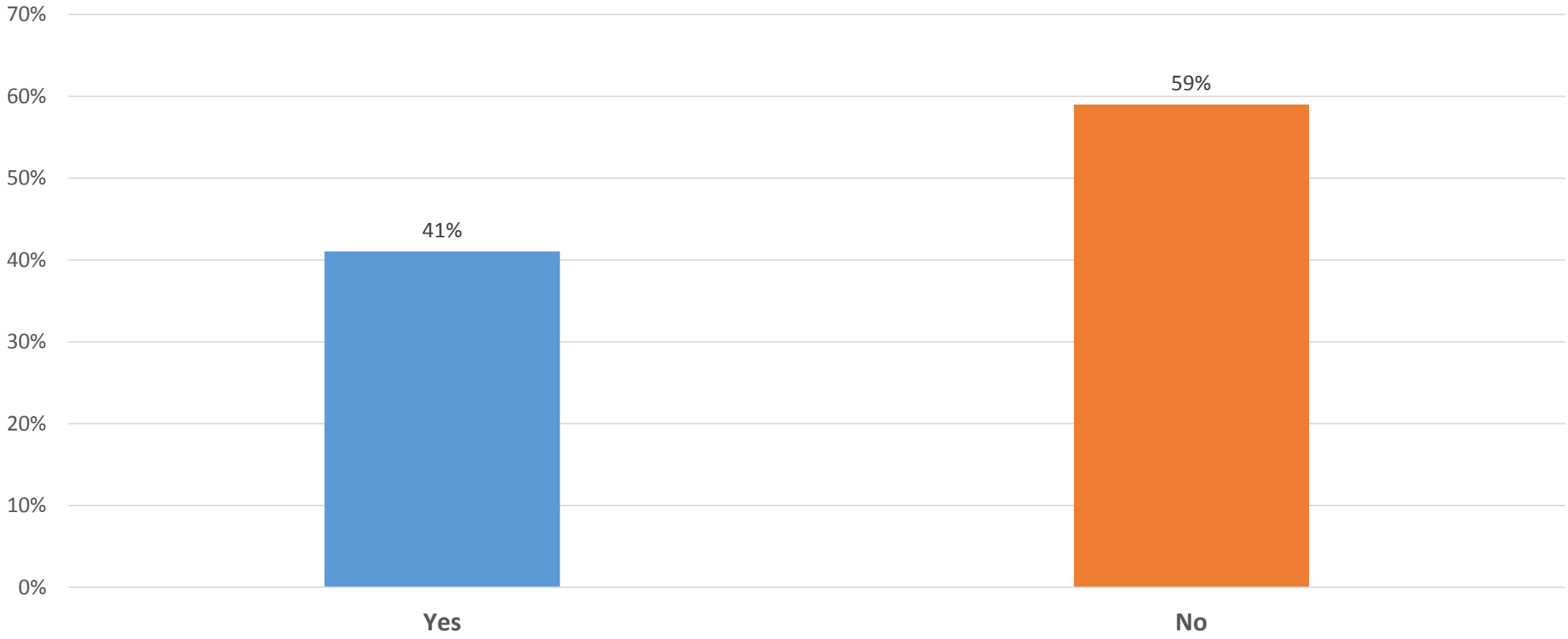
23 percent of participants state that they have SCN in their fields.



Q10: Do you know if you have nematodes in your fields?

Awareness of Presence of Soybean Cyst Nematode (SCN)

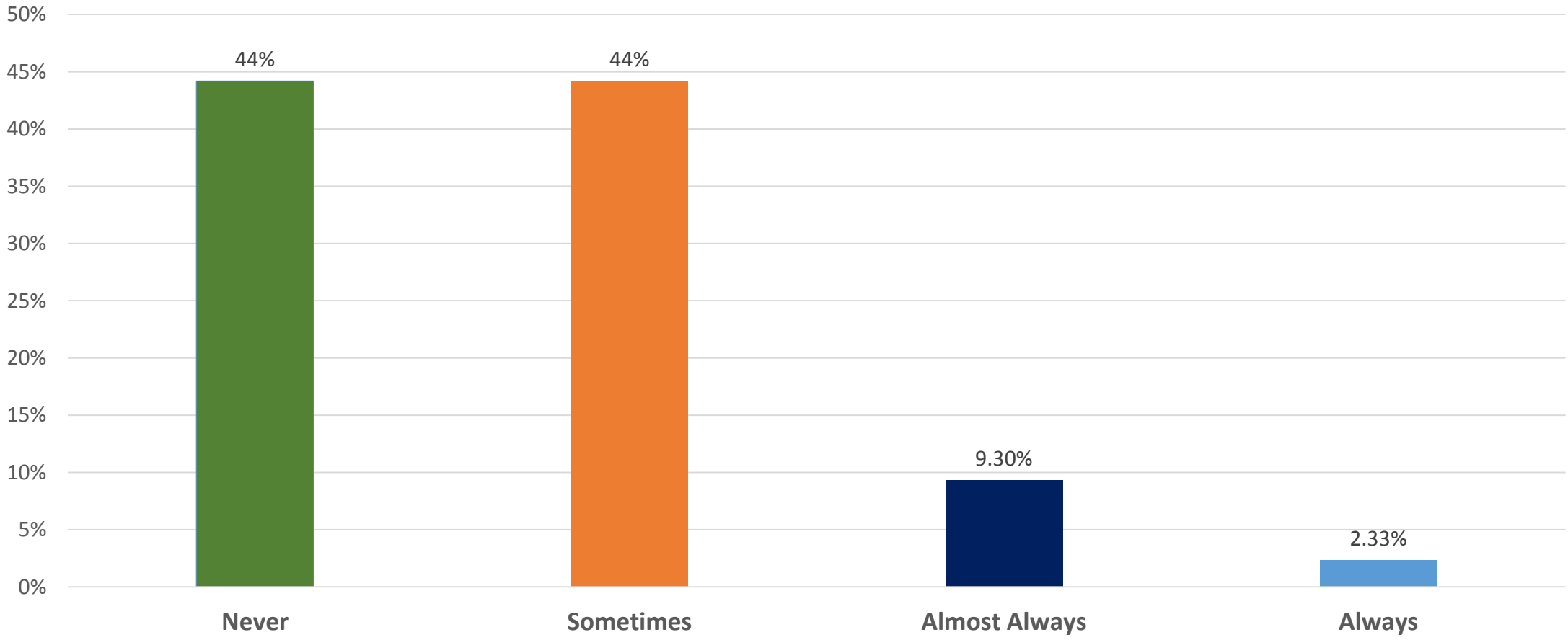
41 percent of participants know if they have SCN in their fields.



Q10: Do you know if you have SCN (Soybean Cyst Nematode) in your fields?

Frequency of SCN Soil Testing – Those Aware of SCN in Fields (N=86)

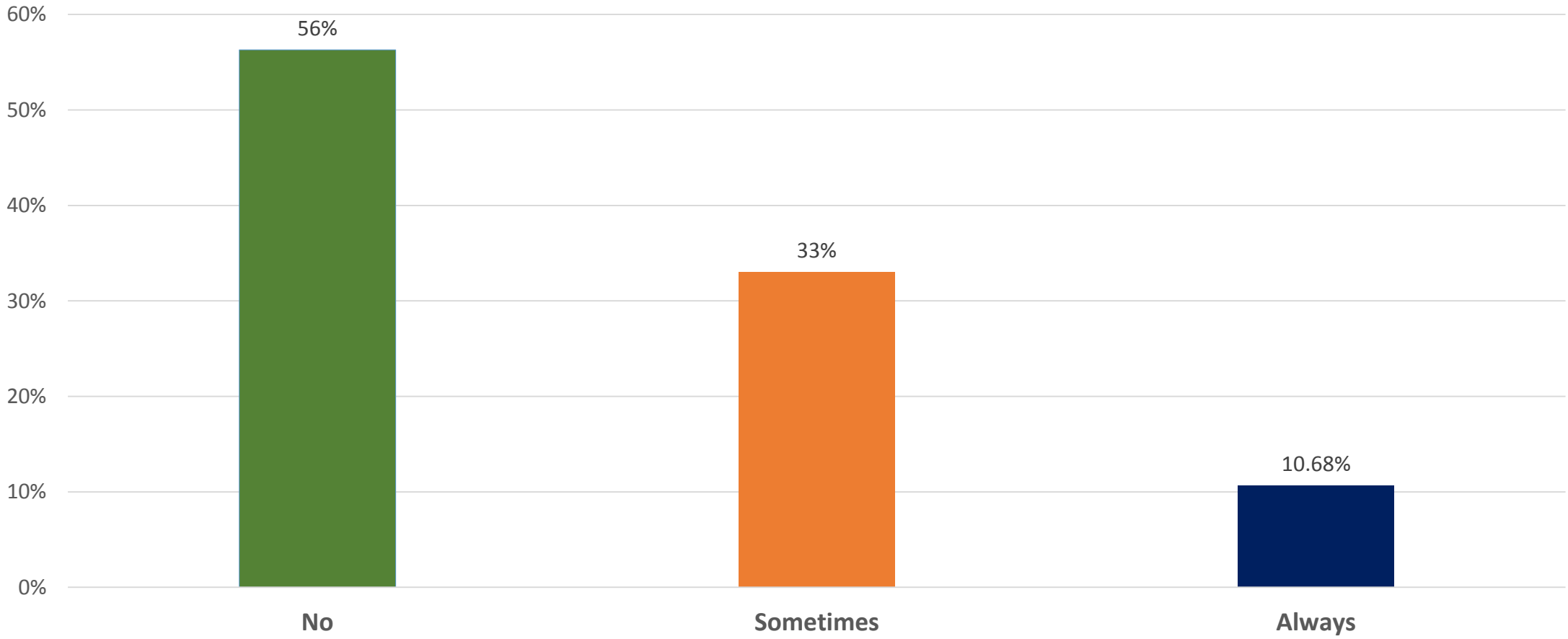
For those with SCN, less than 3 percent always soil test.



Q11: If you have nematodes in your fields, are you testing your soil for nematodes every time before you plant beans?

4-5 Year SCN Soil Testing – Those Unaware of SCN in Fields (N=206)

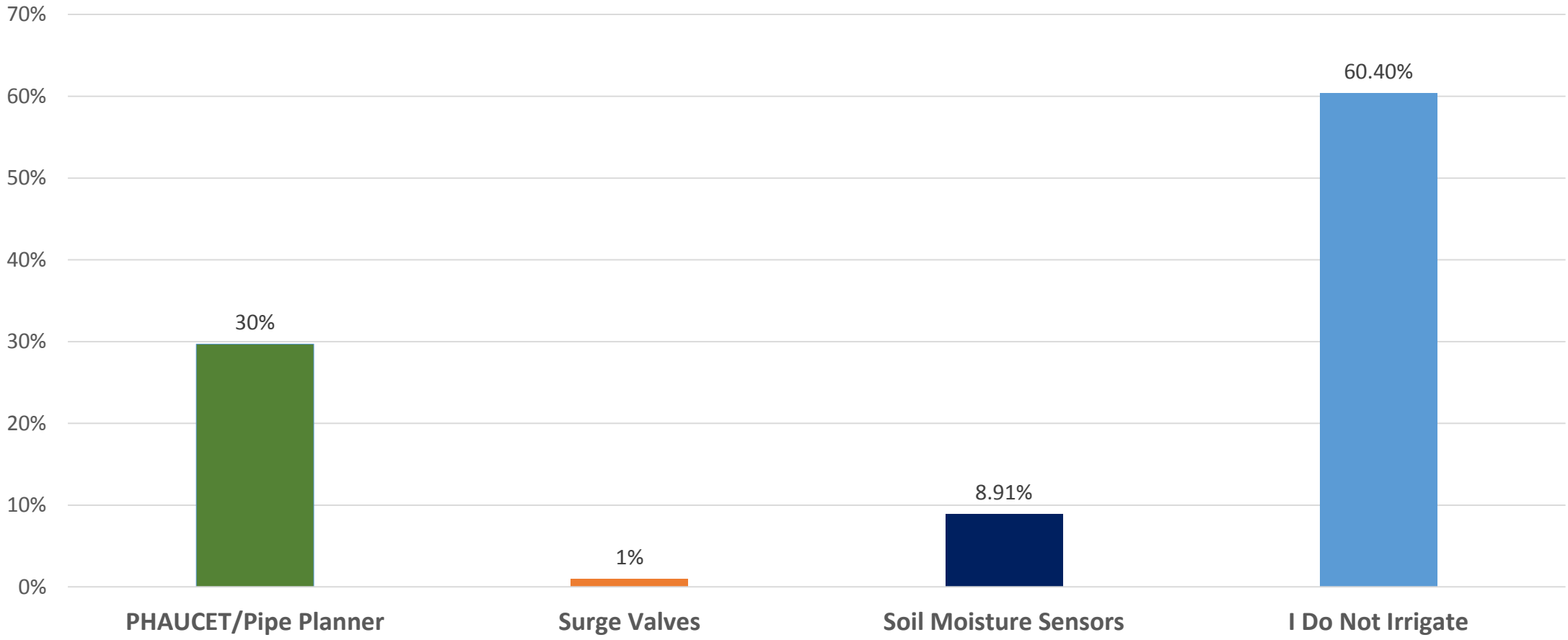
For those without SCN, over half do not test soil for SCN at least every 4-5 years.



Q12: If you don't have nematodes in your fields, are you testing your soil for nematodes at least every 4-5 years?

Use of Irrigation Methods

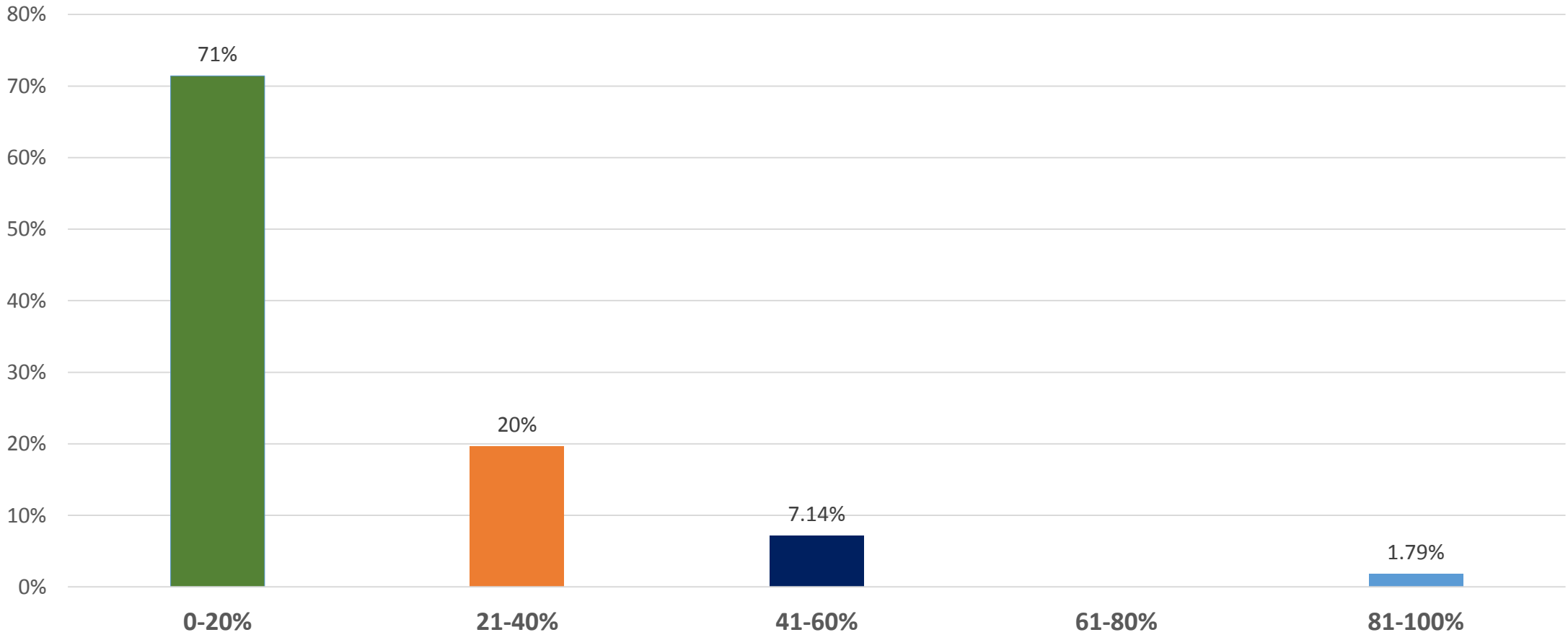
60 percent of participants do not irrigate.



Q13: Do you use any of the following on your farm for irrigation?

Water Use Metering

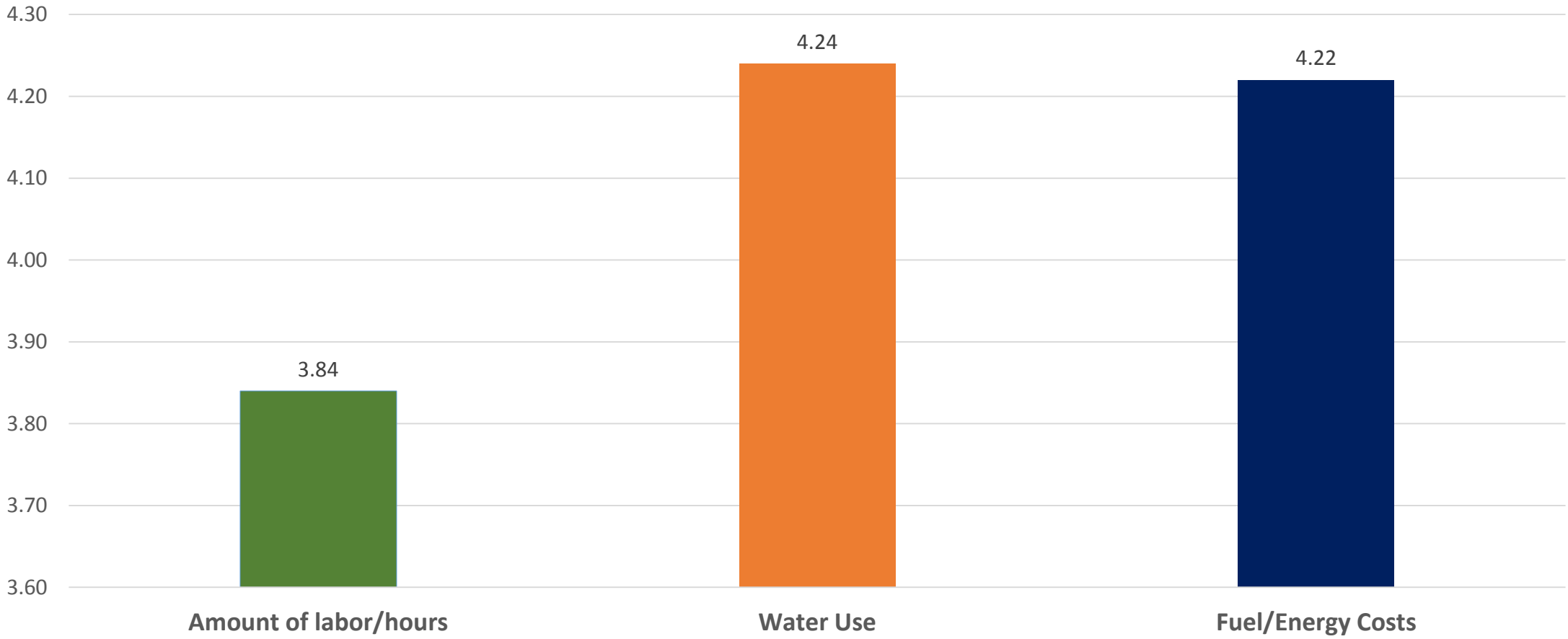
Water metering is low as a percentage of acres.



Q14: If you irrigate, on what percentage of acres, do you monitor your water use with well or flow meters?

Irrigation Evaluation Factors

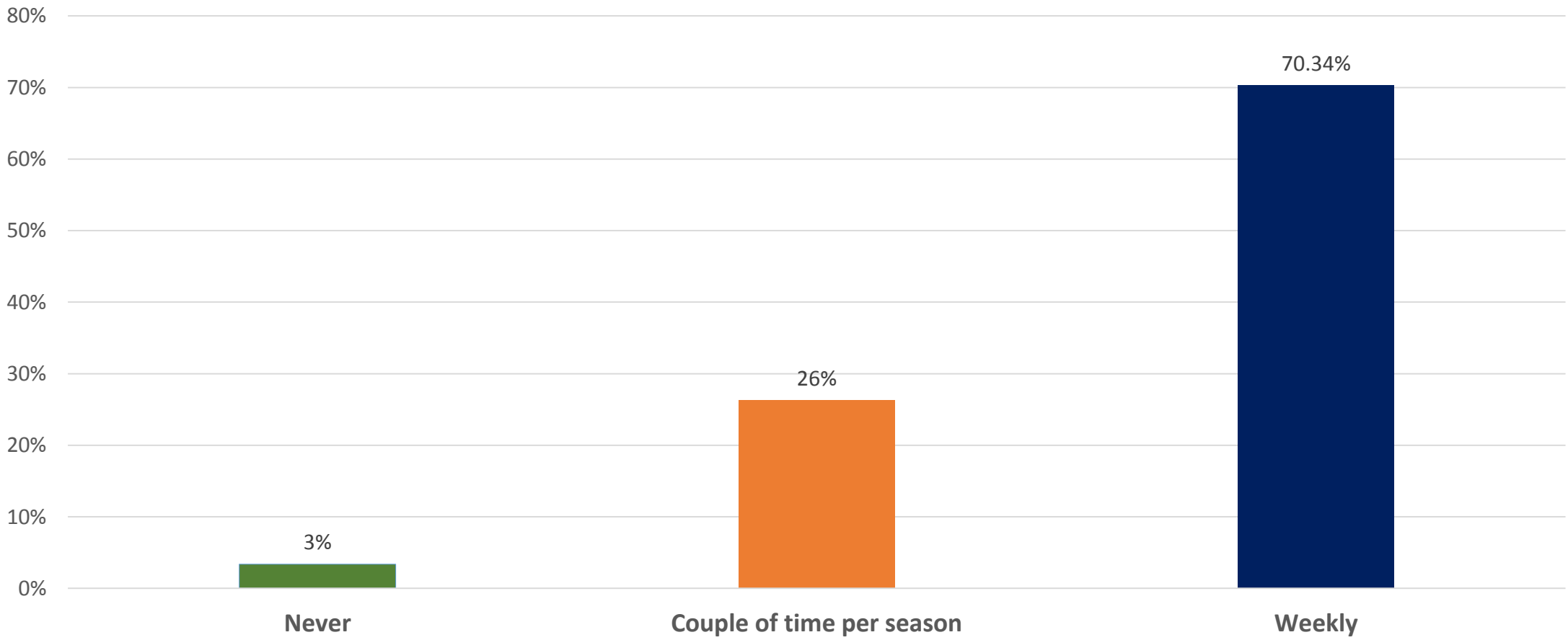
On a 1-5 scale, Water Use and Fuel/Energy Costs are equally important factors when considering irrigation.



Q15: If you irrigate, using a scale of 1-5, with "1" representing "not at all important" and "5" representing "very important", how important are the following factors when you consider irrigating?

Field Scouting Frequency

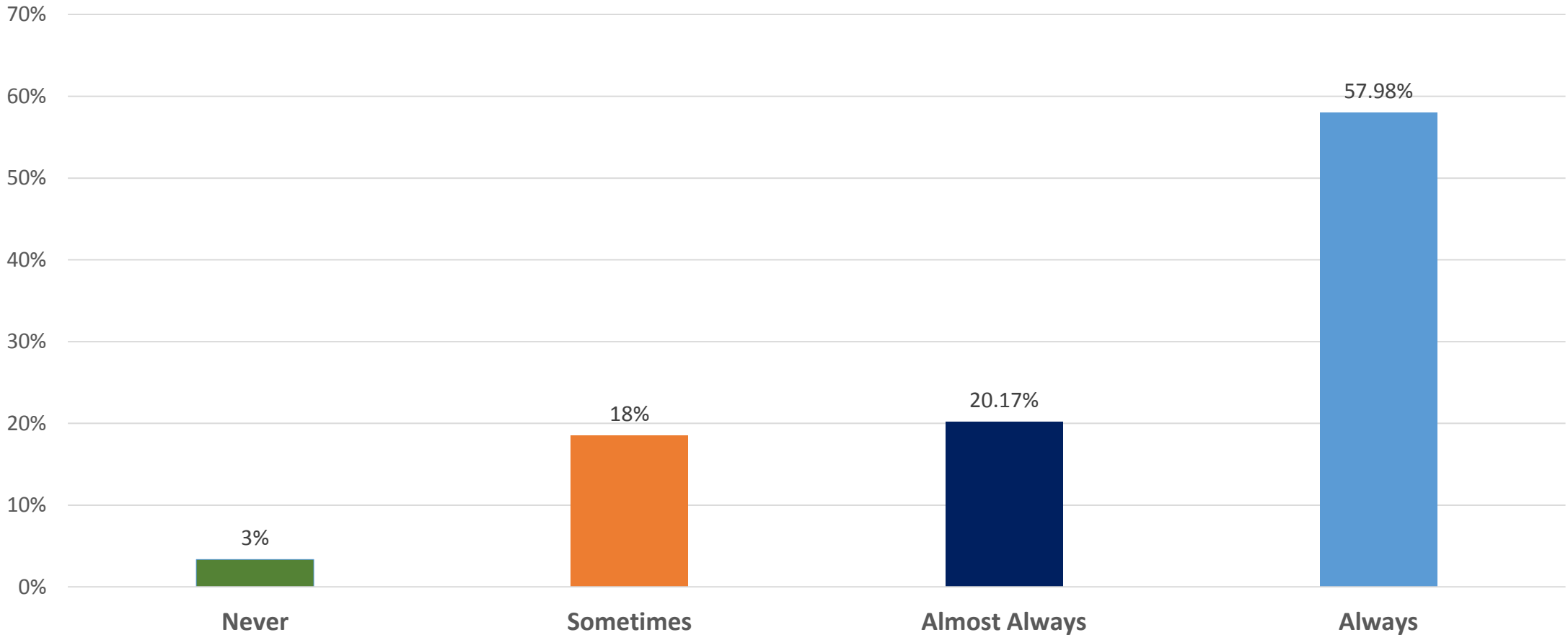
70 percent of participants scout their fields on a weekly basis.



Q16: How often do you, or someone on behalf of your farm, scout your fields to check for the presence of insects, weeds, and diseases during the growing season?

Field Scouting Protocol

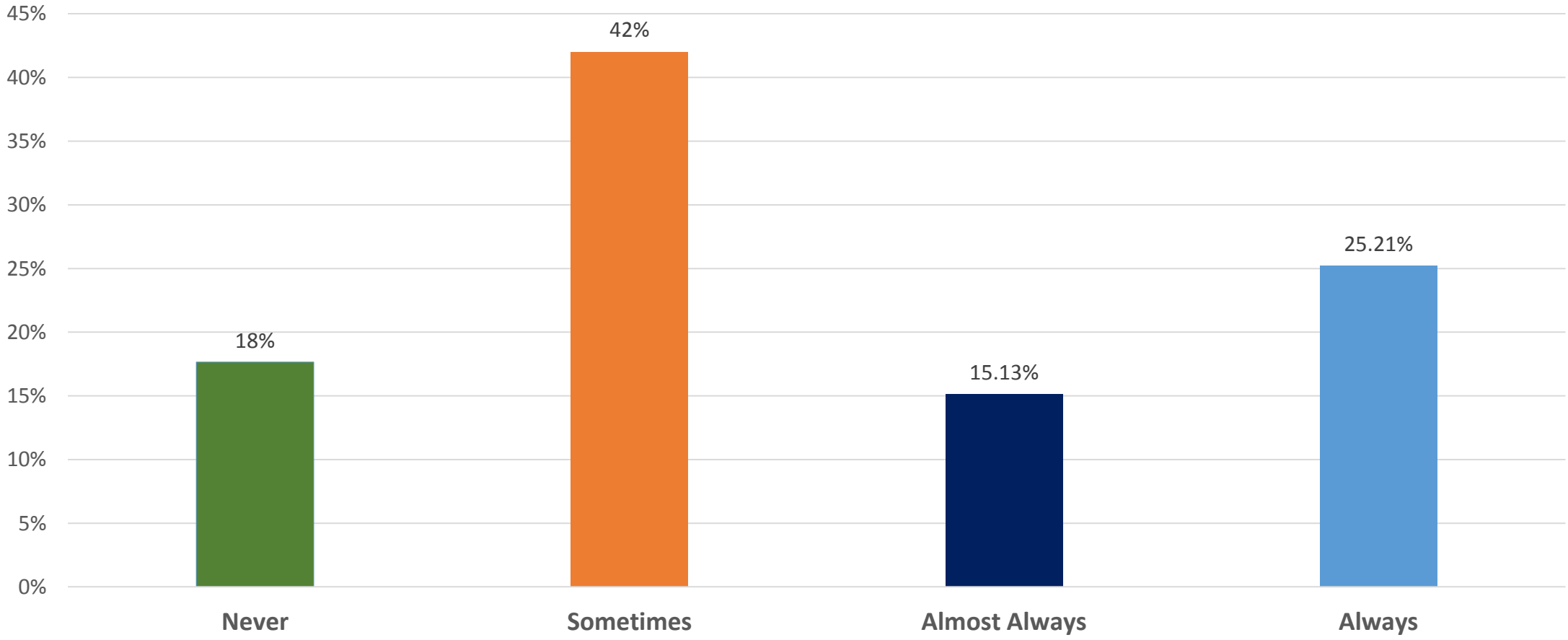
58 percent of participants always walk the field when scouting.



Q17: When scouting, do you or someone on behalf of the farm actually walk the fields?

Scouting Results Planning For Next Year's Crop

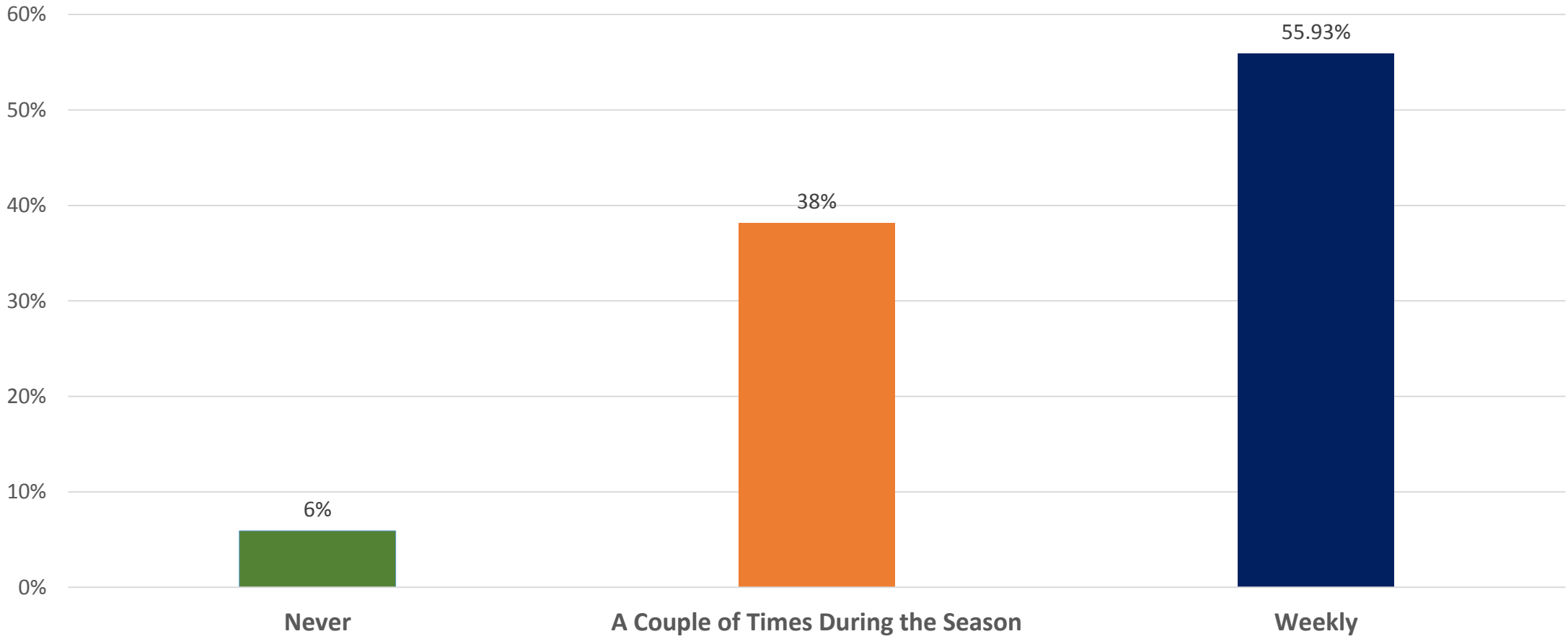
25 percent of participants always use scouting results to plan for next year's crop.



Q18: Do you use your scouting results to plan for next year's crop?

Field Check Frequency for Disease

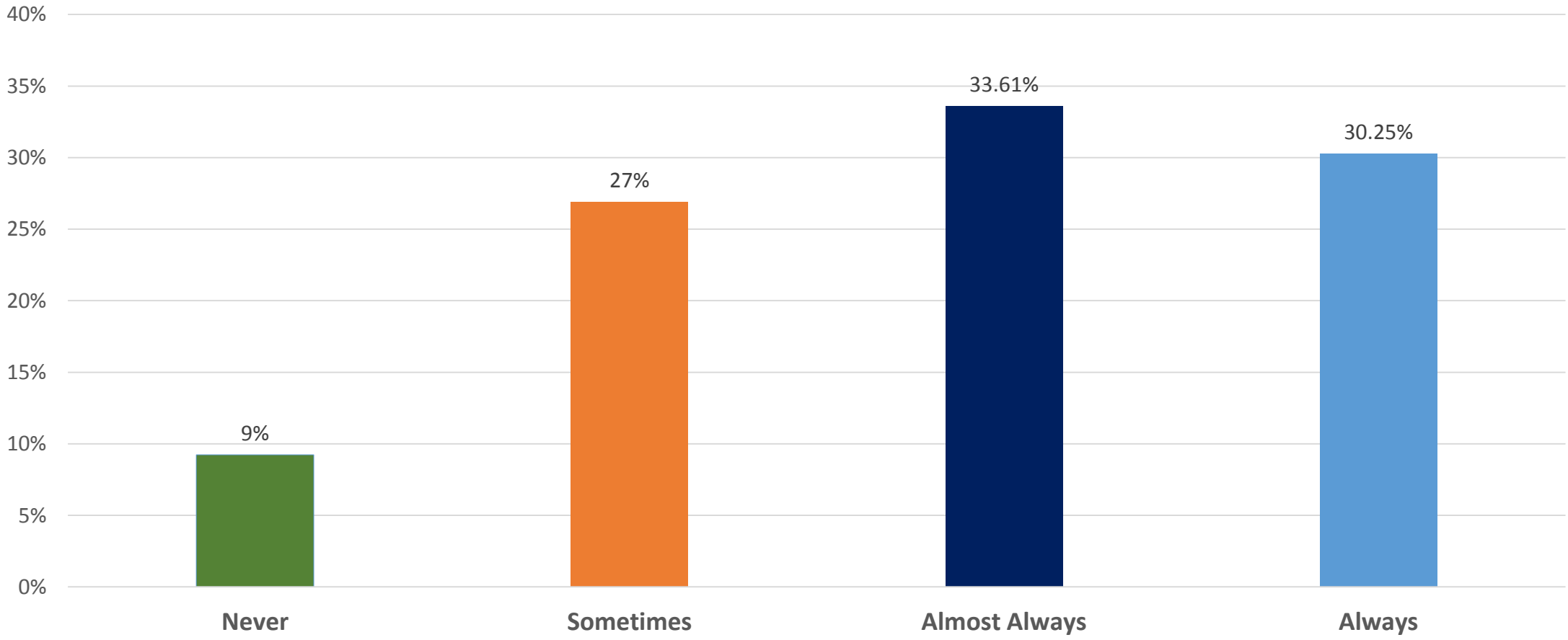
56 percent of participants field check for disease on a weekly basis.



Q19: Throughout the growing season, are you actively checking your fields for presence of disease, stem canker, frogeye leaf spot, cercospora leaf blight, iron deficiency chlorosis, charcoal rot, and sudden death syndrome?

Mitigation Practice For Present Disease

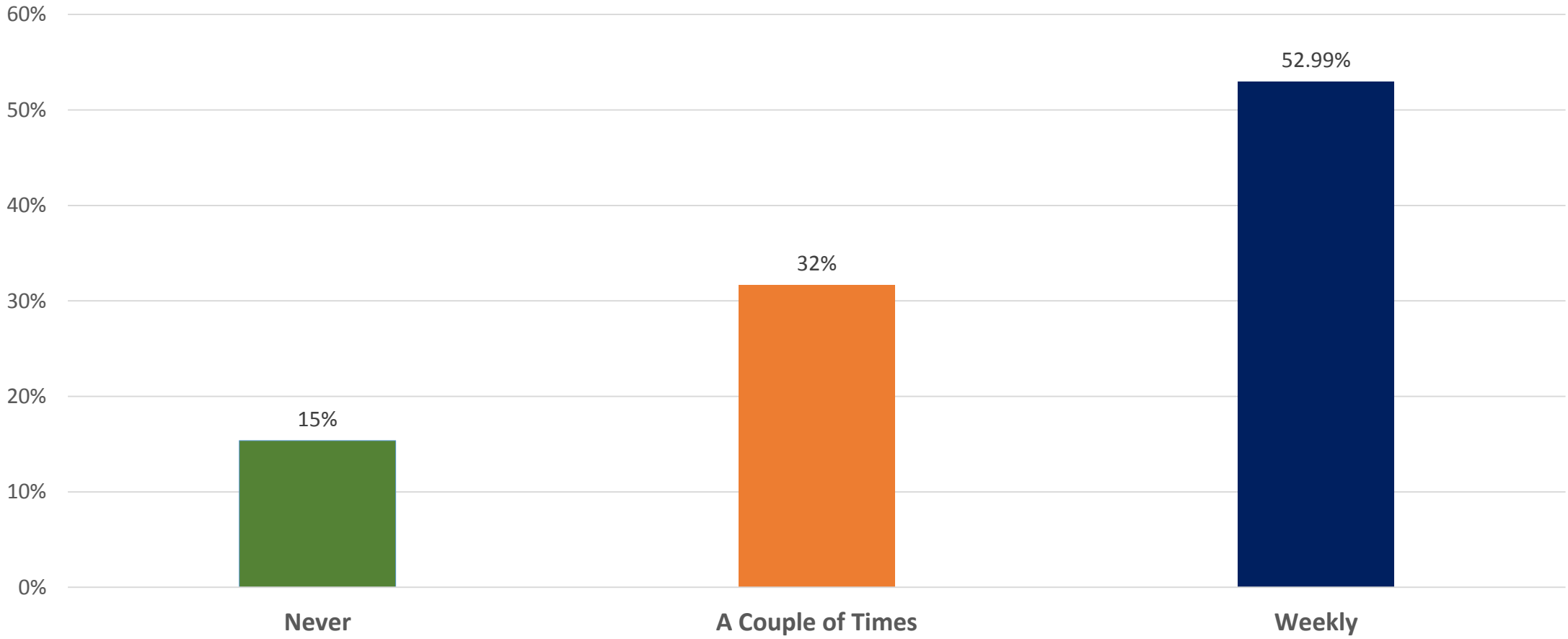
30 percent of participants always implement practices or make decisions to mitigate known present disease.



Q20: Are you implementing practices or making decisions to fight/mitigate known present disease(s)?

Field Checking for Insects

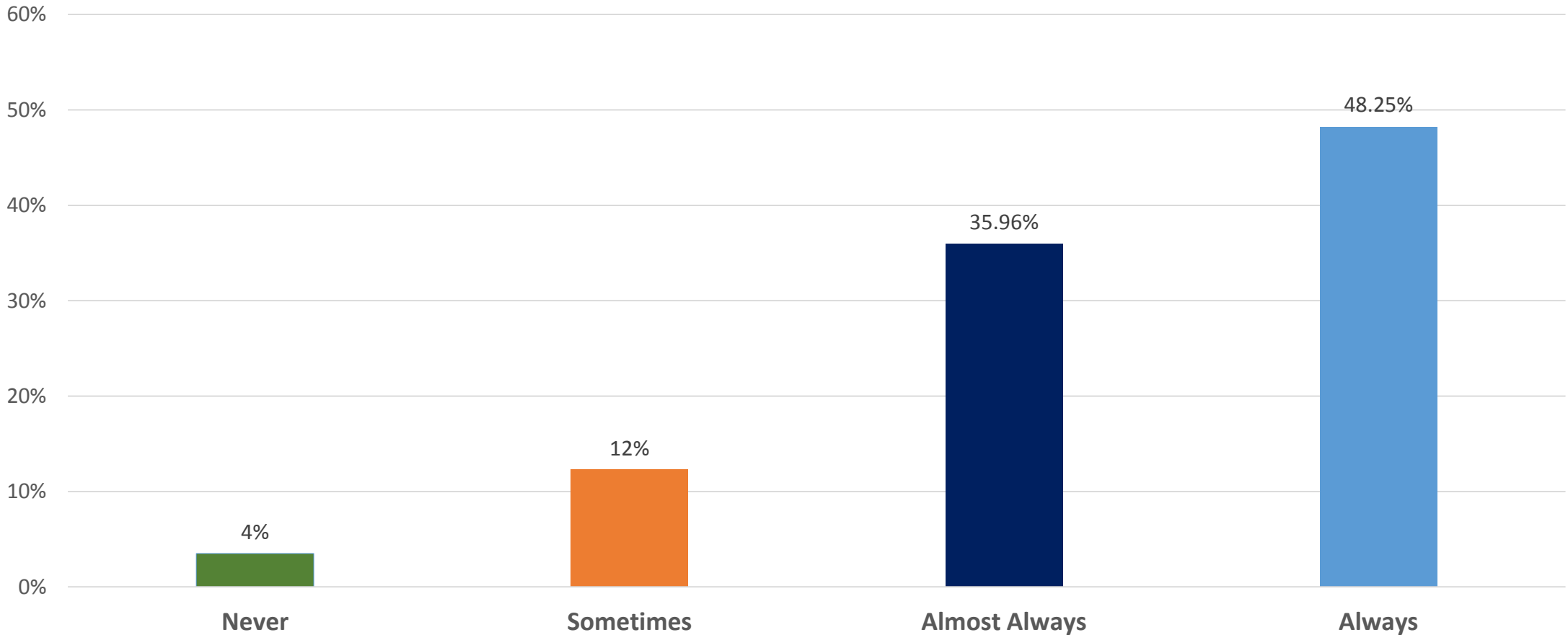
53 percent of participants are using a sweep net or drop cloth on a weekly basis.



Q21: Throughout the growing season, how often do you, or someone on behalf of the farm, use a sweep net or drop cloth to measure the amount of insects in the field?

Disease/Insect Threshold Treatment

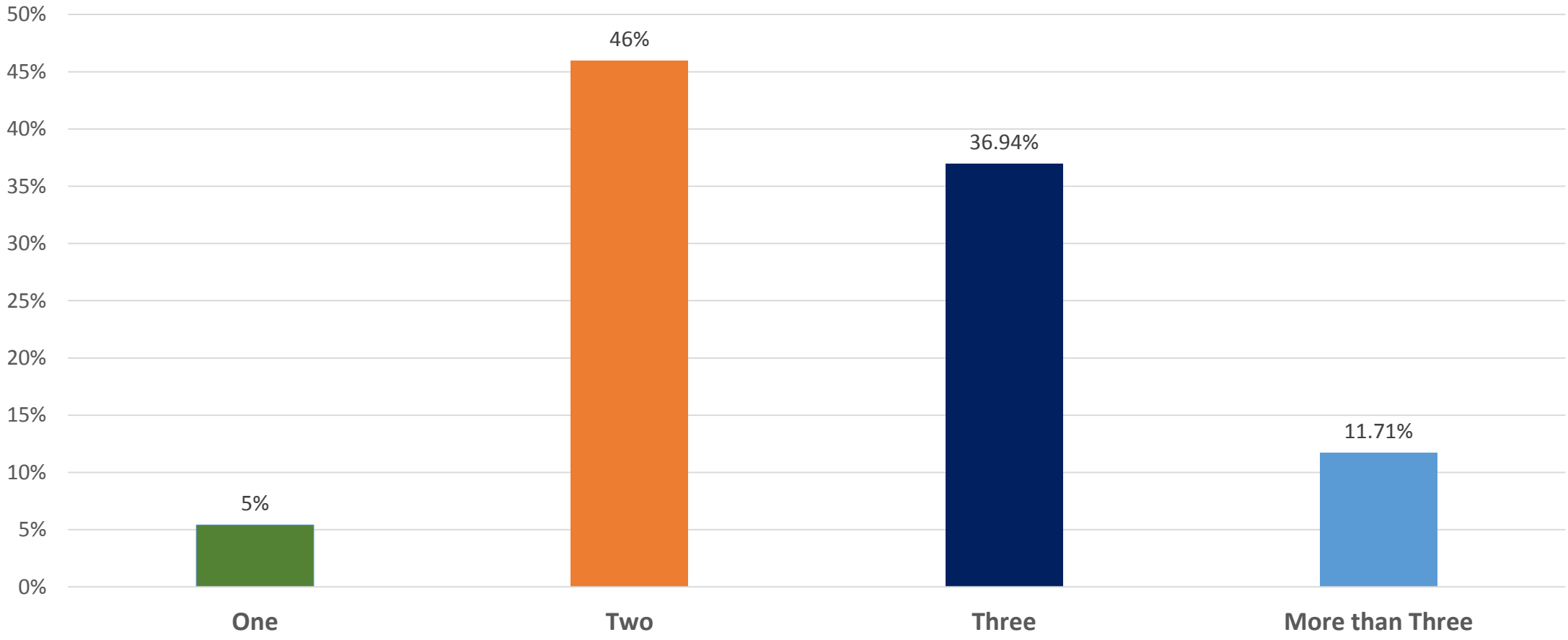
48 percent of participants are immediately treating insects once they reach economic thresholds.



Q22: Are you treating insects and diseases immediately once they reach economic thresholds?

Use of Multiple Herbicide Modes and Sites of Action

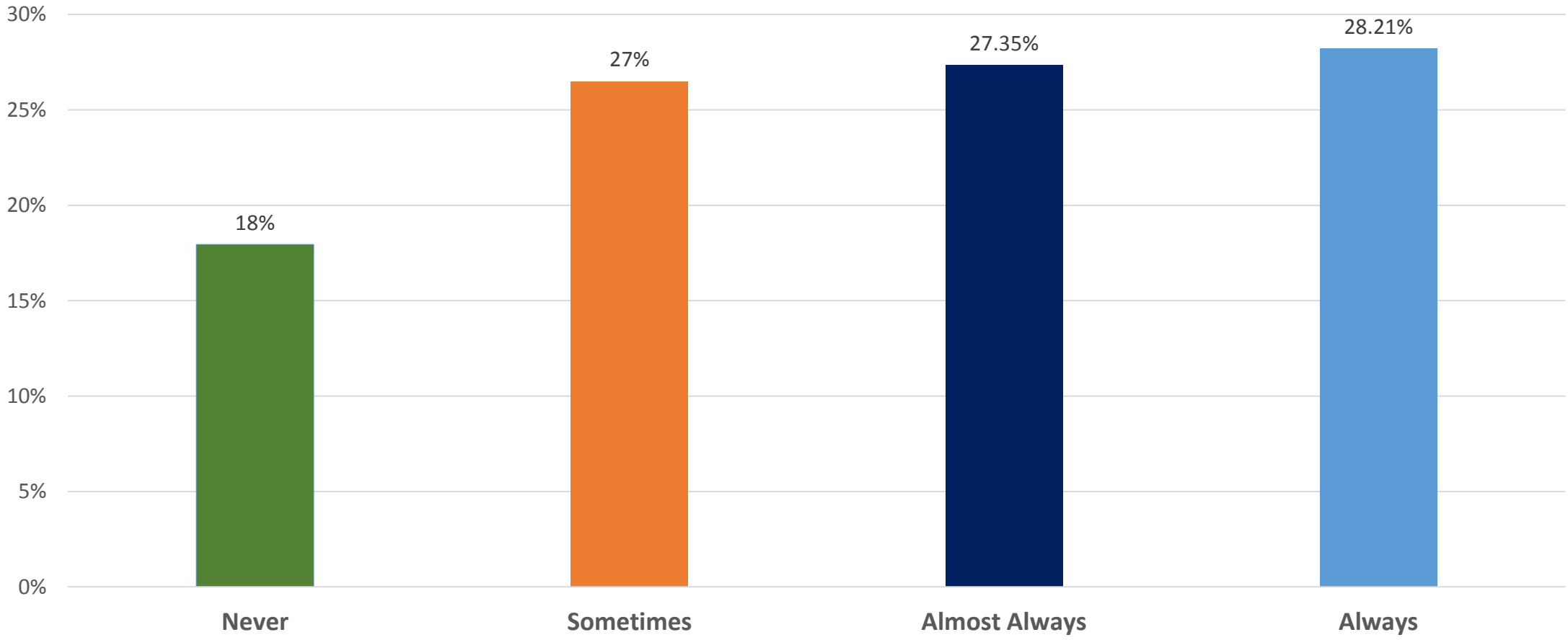
95 percent of participants use 2 or more modes and sites of action to manage weeds.



Q23: How many modes and sites of action do you typically use when managing weeds?

Use of Pre-plant Herbicide

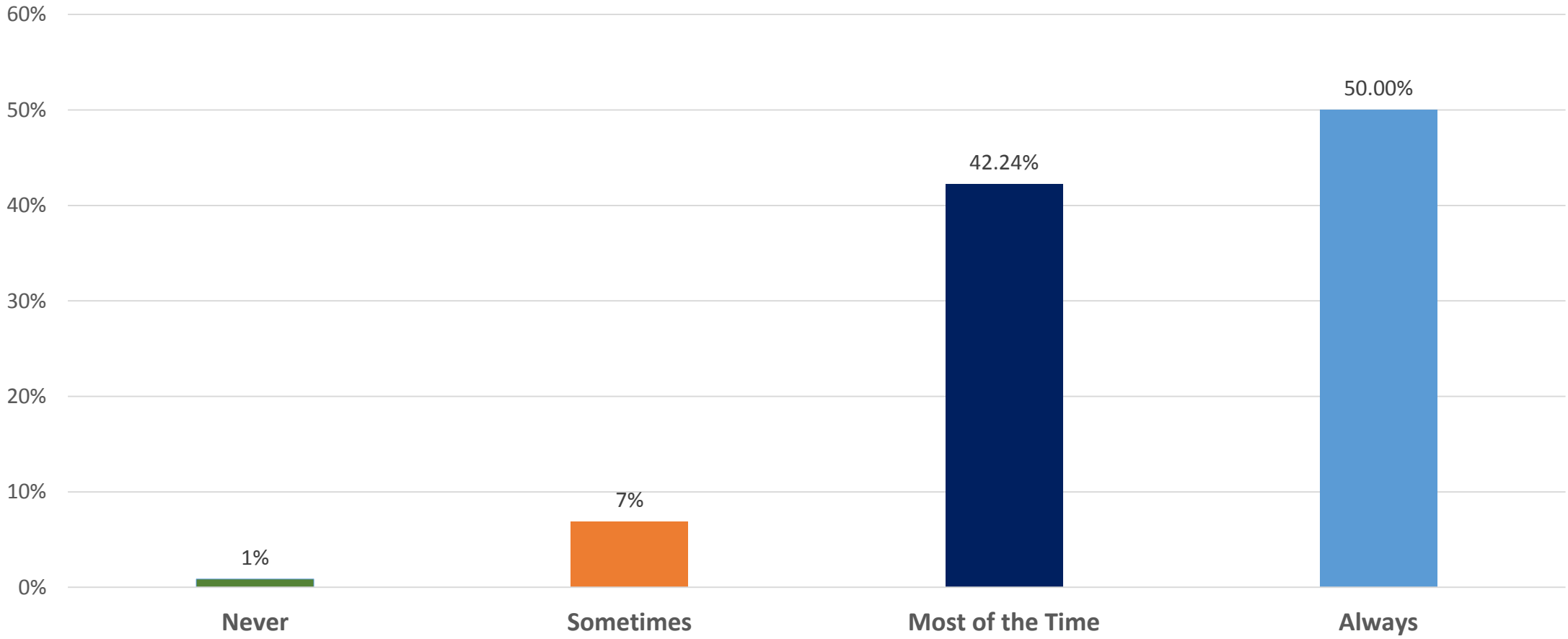
28 percent of participants always use a pre-plant herbicide for weed control.



Q24: Do you use a pre-plant herbicide to provide a wider window for post-emergence herbicide applications and to reduce the risk of herbicide resistance?

Use of Full Labeled Rates

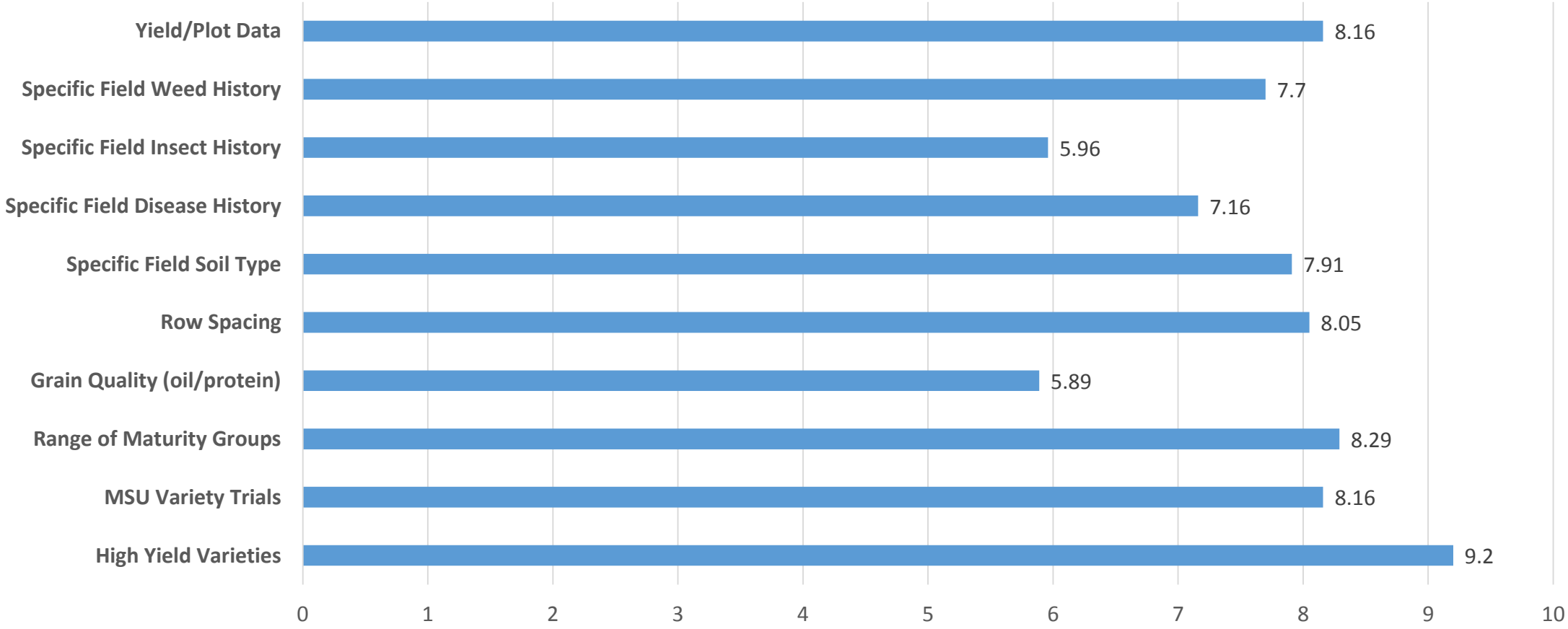
50 percent of participants always use full labeled rates for fungicides, insecticides or herbicides.



Q25: When applying fungicides, insecticides or herbicides, do you use the full labeled rate?

Importance of Characteristics in Choosing Soybean Varieties (1-10 Scale)

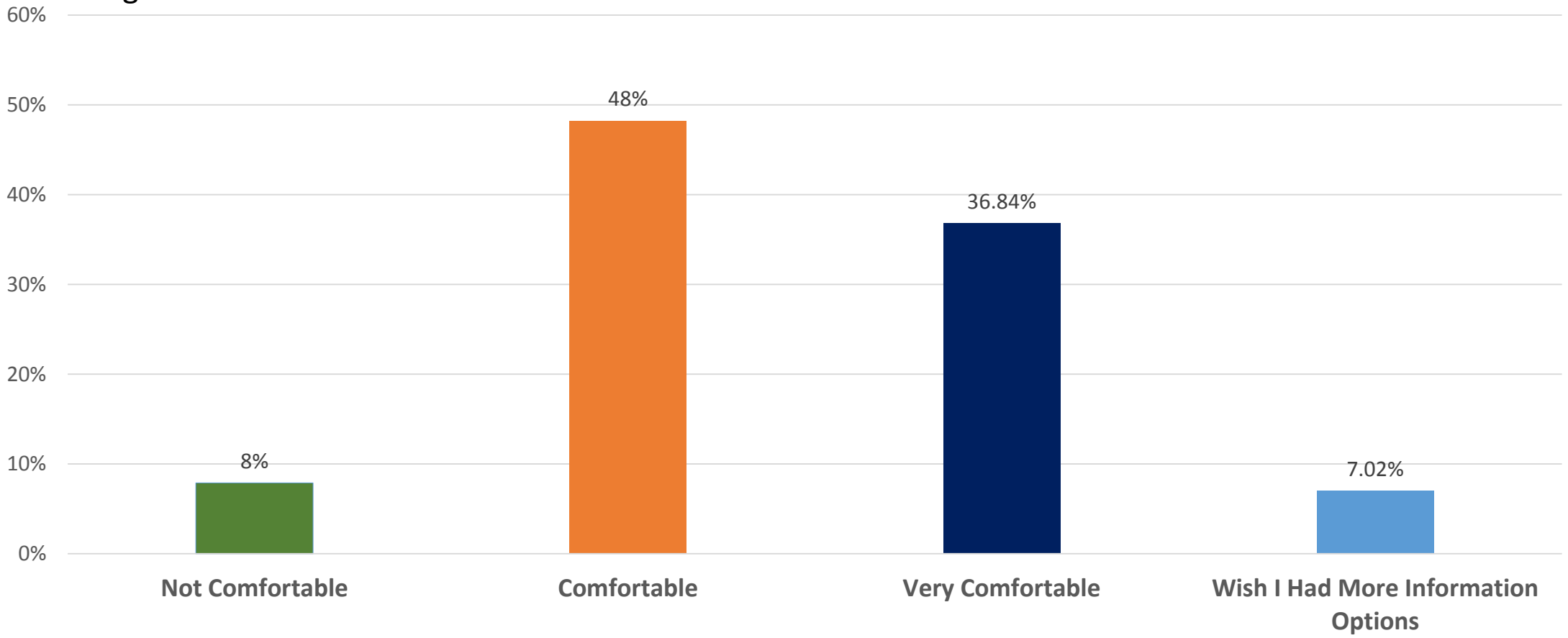
High Yield Varieties is the most important characteristic in choosing a variety among participants.
Oil/Protein content is least important to participants.



Q26: On a 1-10 scale, with "10" representing the highest in importance, please circle the number that represents how important the following characteristics are in choosing soybean varieties.

Comfort Level With Retailer Recommendations

85 percent of participants are either “very comfortable” or “comfortable” in the recommendations they receive from ag retailers.



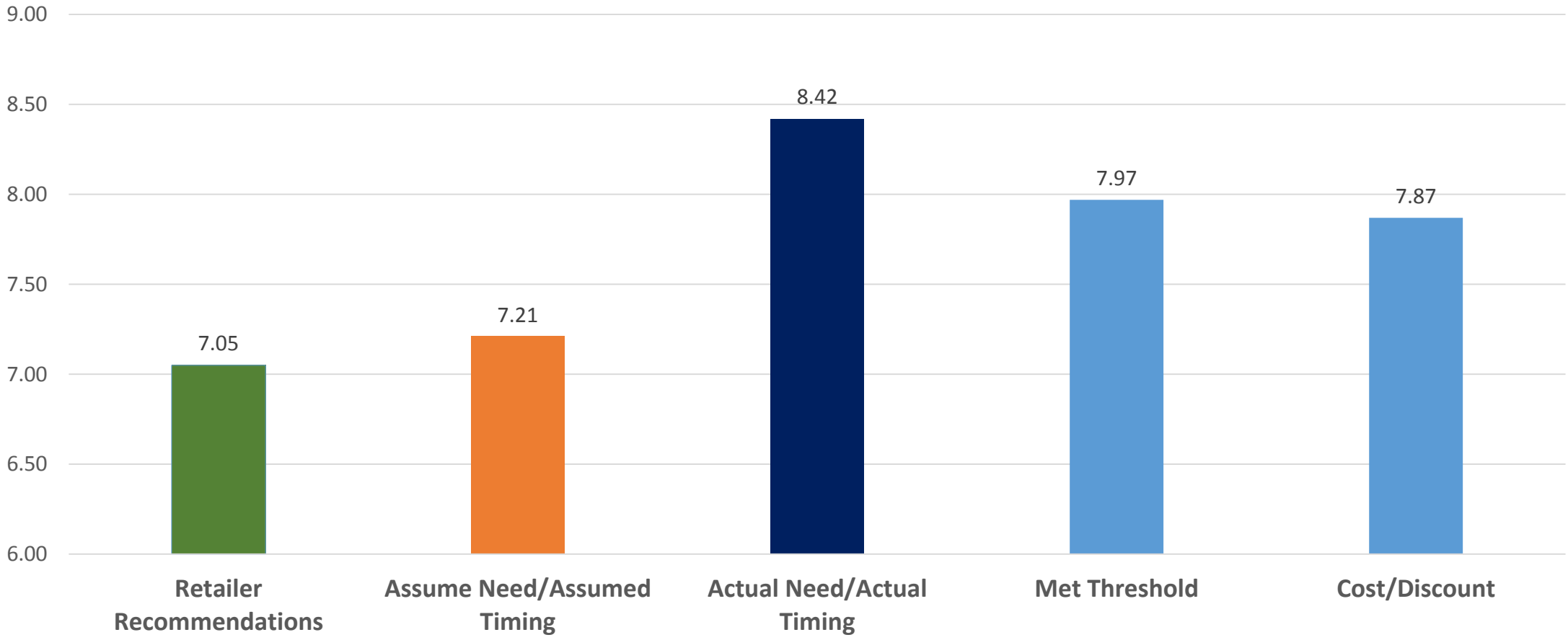
Q27: How comfortable are you with the recommendations you receive from ag retailers to help you produce soybeans?

Other Sources of Information

- Mississippi State University (MSU) – top mention
- Other Farmers
- Crop Consultant
- Ag Publications
- Local Trials
- Farm Publications

Criteria for Purchasing Crop Inputs or Schedule Crop Treatments

"Actual Need/Actual Timing" is rated the highest importance by participants – "Retail Recommendation" least.



Q29: Again on a 1 to 10 scale, with 10 representing highest importance, rank the importance of the following factors when you buy crop inputs or schedule crop treatments?

Other Mentioned Criteria for Purchase of Crop Inputs or Scheduling Crop Treatments

- Price
- Weather
- History
- Service
- Quality
- Future Planting
- Trusted Products
- Return on Investment
- Universal to my Crops
- Whether consultant is paid to recommend
- Convenience

Methods to Increase Soybean Yields

Most Mentions

- Selection of Variety
- Rotating Crops
- Fertility
- Moisture Retention/Irrigation
- Plant on time/Spray on time
- Using beds
- Lime
- No till
- Drainage
- Land Leveling

Other Mentions

- Using latest technology
- Seed protection
- Soil sampling
- Rotation with corn
- Fungicide
- Deep tillage
- Electric fences
- Erosion control

Top Three Soybean Issues

Top Three

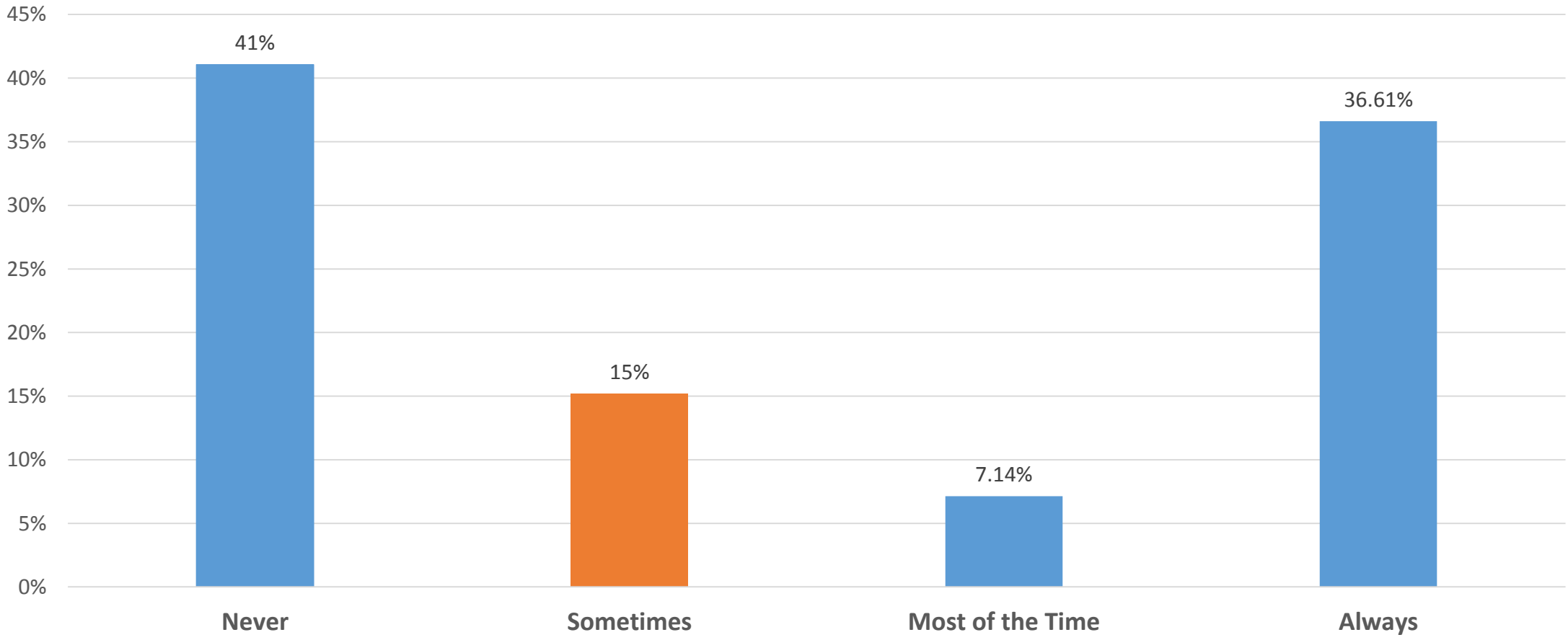
1. Weed resistance (Pigweed/Morning Glory mentioned specifically)
2. Moisture
3. Cost

Other Mentions

- Soybean Varieties
- Fertility
- Weather
- Drainage
- Disease
- Timely Planting
- Rent
- Wildlife
- Yield
- Pests

Use of Crop Consultant/Advisor

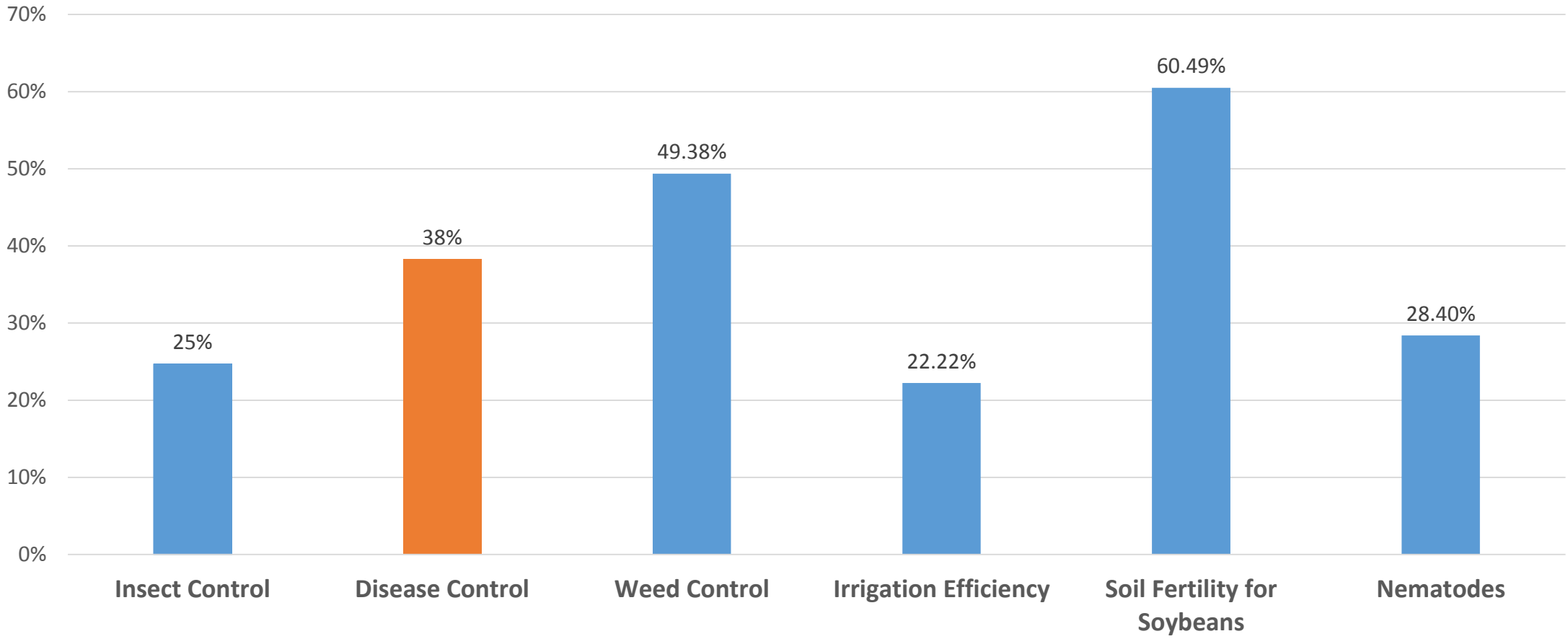
36 percent of participants always hire a crop consultant or advisor.



Q34: Do you hire a crop consultant or advisor?

Needed Information

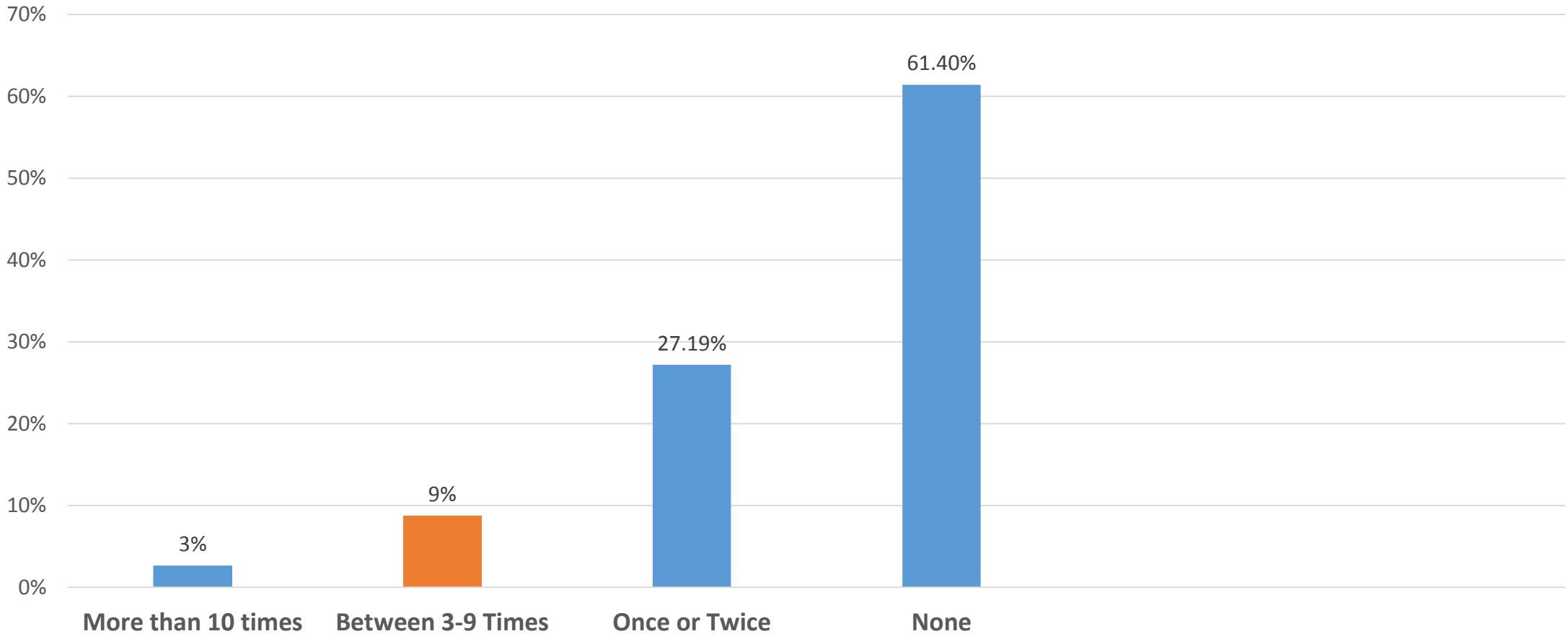
60 percent of participants want more information on soil fertility for soybeans.



Q35: Is there a topic you wish you had more information on (check all that apply):

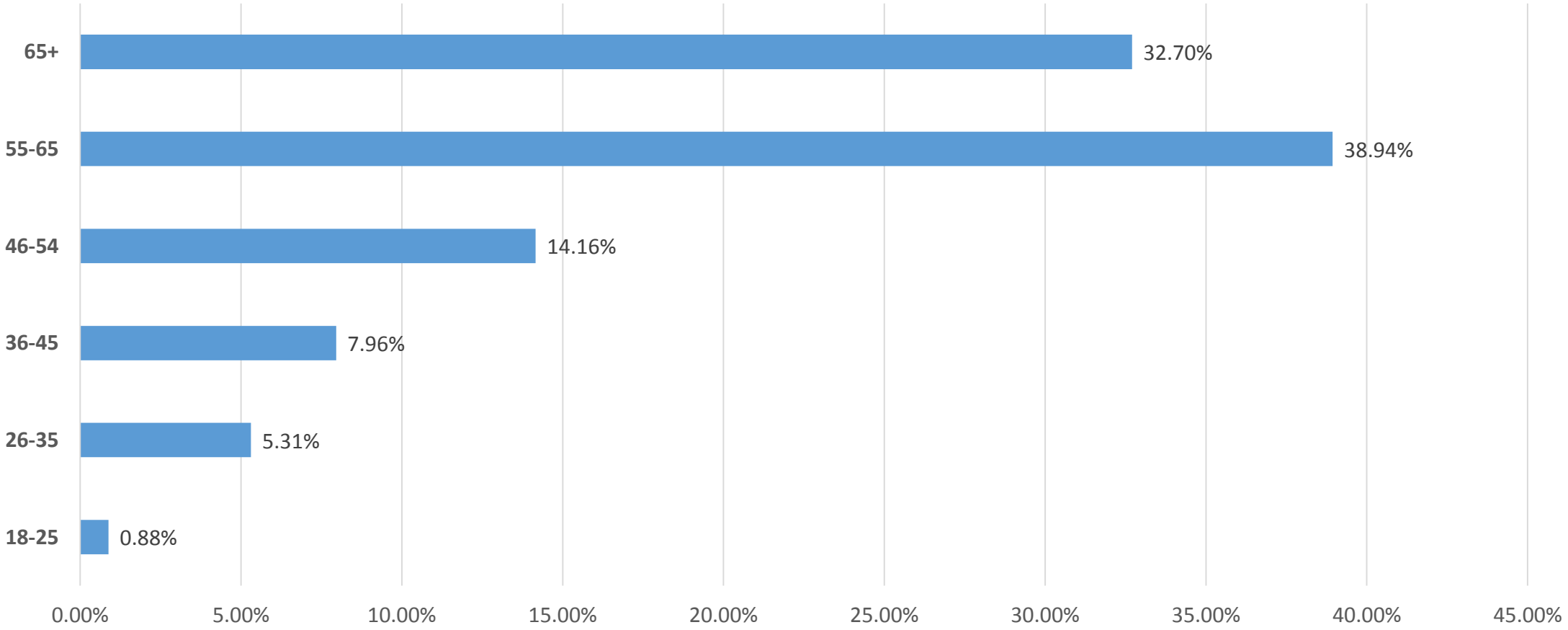
MSPB Website Usage

61 percent of participants have not visited the MSPB Website in the past year.



Q36: How many times have you been to the MSPB website, www.mssoy.org in the past year?

Age Distribution of Participants



What is your age (circle one)?

Participant Acreage

Total Tillable Acreage

Range: 40 – 9,000 acres

Average Acres: 1,725

Total Soybean Acreage

Range: 30 – 8,150 acres

Average Acres: 1,199