

PRODUCTION RESEARCH ADVISORY BOARD

Annual Production Practices Survey Results

2022



MSU Extension

Michigan
BEAN COMMISSION



2022

Original Questionnaire (taken in digital format):

Q0- Demographics

Q1 - I would describe myself as a _____ farmer or crop consultant.

Q2 - Do you include dry beans in your crop rotation each year?

Q3 - My Farm or office is primarily located in _____ county.

Q4 - My dry beans are _____.

Q5 - On a five-year average our farm raises _____ acres of dry beans each year.

Q6 - In 2021 I raised _____ beans.

Q7- What row width are you planting?

Q8 - I like to plant my dry beans at _____ thousand seeds per acre.

Q9 - When do you like to plant your dry beans given the choice?

Q10- Given a choice do you prefer to plant dry beans following:

Q11 - Please select your normal source of nitrogen

Q12 - How and when do you apply nitrogen?

Q13- How many total pounds per acre of actual Nitrogen do you apply?

Q14- How many total pounds per acre of actual Phosphorus do you apply?

Q15- How many total pounds per acre of actual Potassium do you apply?

Q16 - What micro-nutrients do you apply to your dry bean crop?

Q17 - Do you tissue test dry beans?

Q18 - Do you foliar feed your dry bean crop?

Q19 - Is manure part of your fertility program?

Q20- What is your most preferred seed treatment?

Q21 - What products are included in your preplant weed control?

Q22- What products are included in your POST weed control program?

Q23 - What adjuvant products are used in your POST weed control program?

Q24- Given your current weed control program, please rank the following weed species are most likely to escape control?

Q25 - Do you have any of the following resistant weeds in your dry bean fields?

Q26 - How do you select what dry bean variety or varieties you choose to plant?

Q27 - What is your most preferred white mold treatment?

Q28 - On a 5 year average, how many white mold fungicide applications do you plan?

Q29 - Do you use a foliar insecticide?

Q30 - What is your most preferred/used insecticide?

Q31 - What is your most preferred harvest aid?

Q32 - What is the preferred method of dry bean harvest on your farm?

Q33 - What kind of head is on your combine?

Q34 - What percentage of your farm acres would have a cover crop?

Q35- What is your most preferred cover crop?

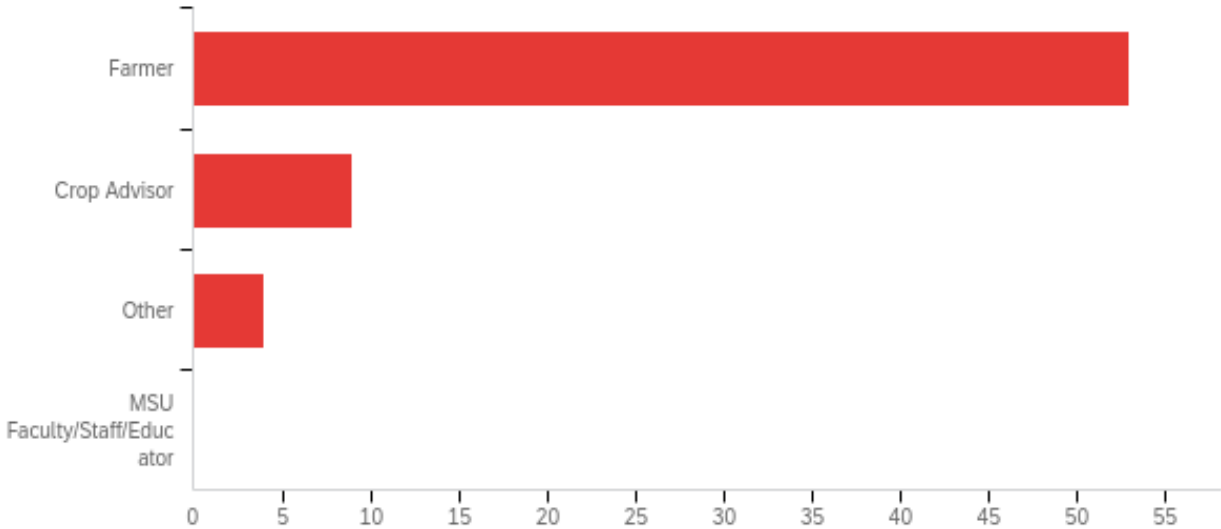
Q36 - What dry bean disease causes the highest yield loss on your farm?

Q37 - Please rank what areas of dry bean production need further researcher to help increase dry bean yields on your farm?

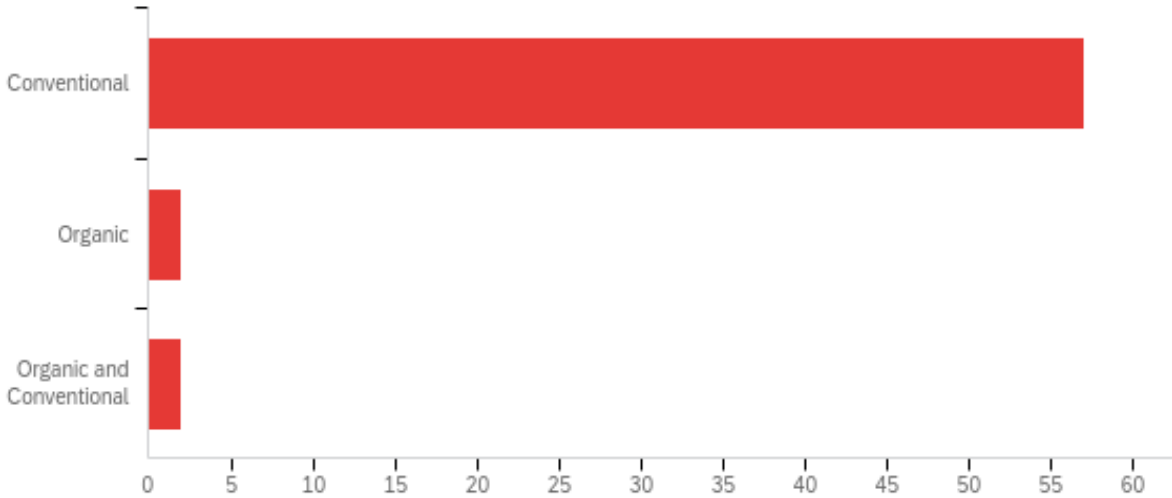
Q38 - When applying nitrogen, do you prefer to also include sulfur?

- Q39- How do you determine when or if you will apply a white mold fungicide?
- Q40 - How many year rotation are your dry beans in?
- Q41 - How confident do you feel confident in the decisions you make in the management of dry beans in the following categories:
- Q42 - In the past 5 years I have applied _____ nitrogen to dry beans.
- Q43 - On average my dry bean yields have _____ over the past 5 years.
- Q44 - Dry bean production on my farm is _____ profitable than it was 5 years ago.
- Q45 - Research done by the Michigan Bean Commission and MSU has improved dry bean production on my farm. (Profitability and Sustainability)
- Q46 - How do you make the decision to spray foliar insecticide?
- Q47 - If you are using a seed treatment w/ an insecticide (Lorsban or Cruiser), are you targeting a specific pest?
- Q48 - How do you decide how much Nitrogen to apply to dry beans?
- Q49 - When producing dry beans Is the control of waterhemp, Palmer amaranth, or horseweed (marestail) a challenge on your farm?
- Q50 - In the past 5 years how often have you sprayed or experienced yield loss/pick from the following pests:
- Q51 - Where do you get the majority of information on dry bean pest when you need it?

Q0- Demographics



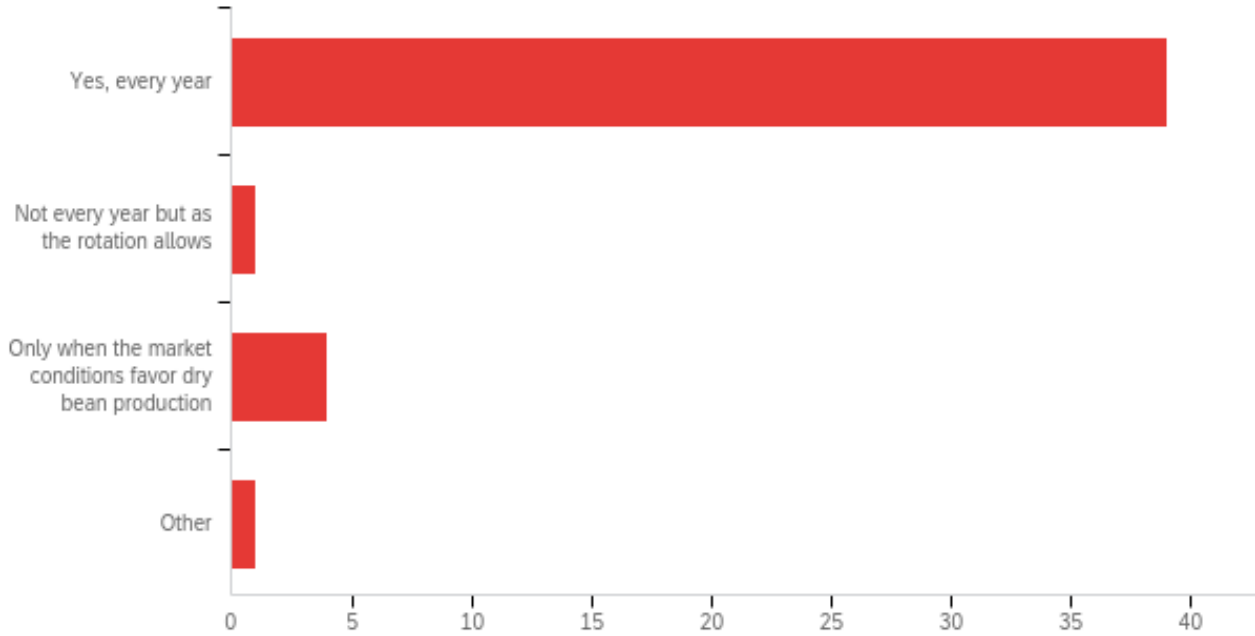
Q1 - I would describe myself as a _____ farmer or crop consultant.



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I would describe myself as a _____ farmer or crop consultant.	1.00	3.00	1.10	0.39	0.15	61

#	Answer	%	Count
1	Conventional	93.44%	57
2	Organic	3.28%	2
3	Organic and Conventional	3.28%	2
	Total	100%	61

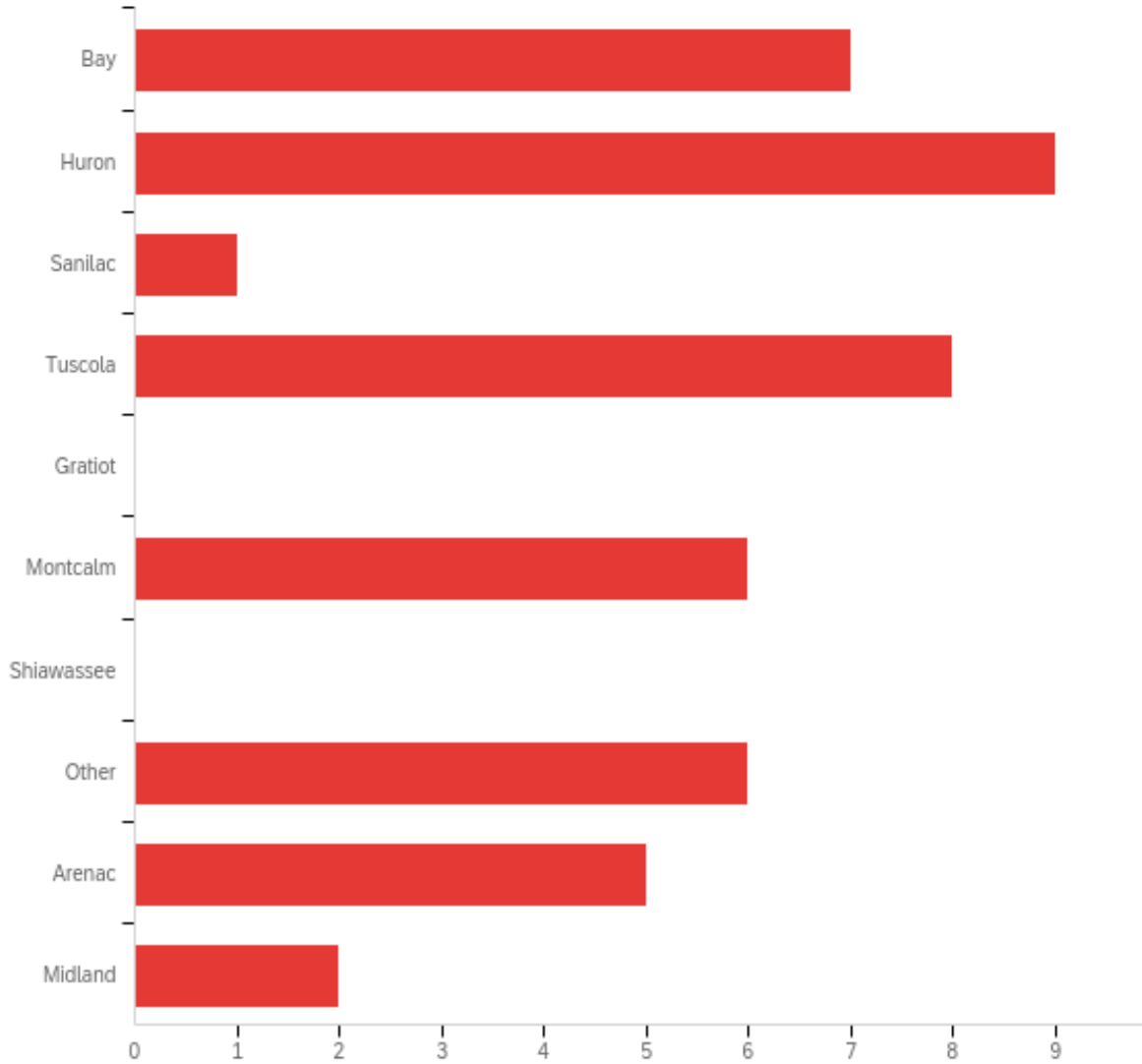
Q2 - Do you include dry beans in your crop rotation each year?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Do you include dry beans in your crop rotation each year? - Selected Choice	1.00	4.00	1.27	0.71	0.51	45

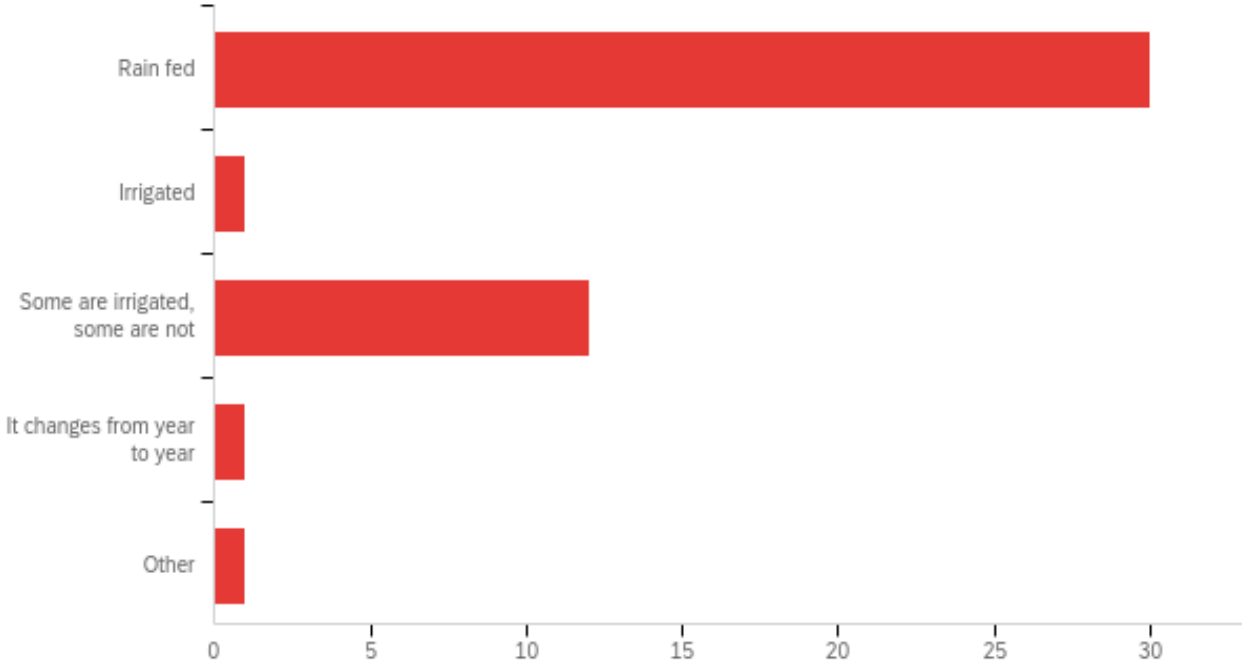
#	Answer	%	Count
1	Yes, every year	86.67%	39
2	Not every year but as the rotation allows	2.22%	1
3	Only when the market conditions favor dry bean production	8.89%	4
4	Other	2.22%	1
	Total	100%	45

Q3 - My Farm or office is primarily located in _____ county.



#	Answer	%	Count
1	Bay	15.91%	7
2	Huron	20.45%	9
3	Sanilac	2.27%	1
4	Tuscola	18.18%	8
5	Gratiot	0.00%	0
6	Montcalm	13.64%	6
7	Shiawassee	0.00%	0
8	Other	13.64%	6
12	Arenac	11.36%	5
13	Midland	4.55%	2
	Total	100%	44

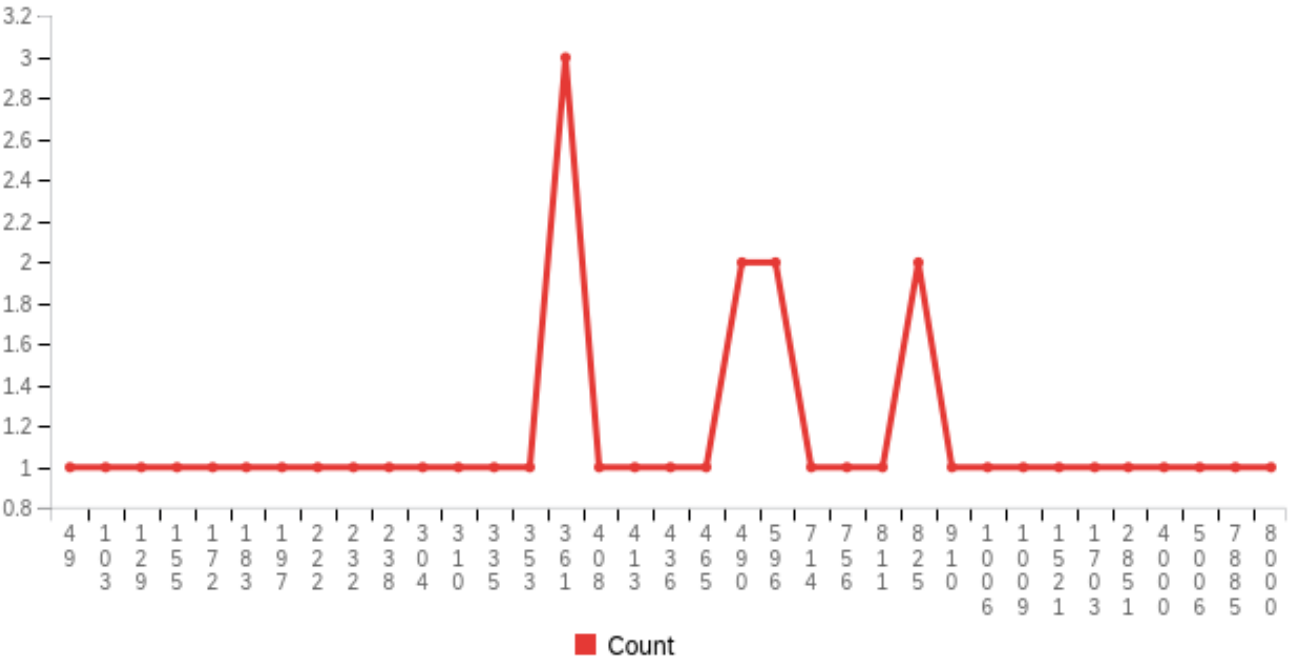
Q4 - My dry beans are _____.



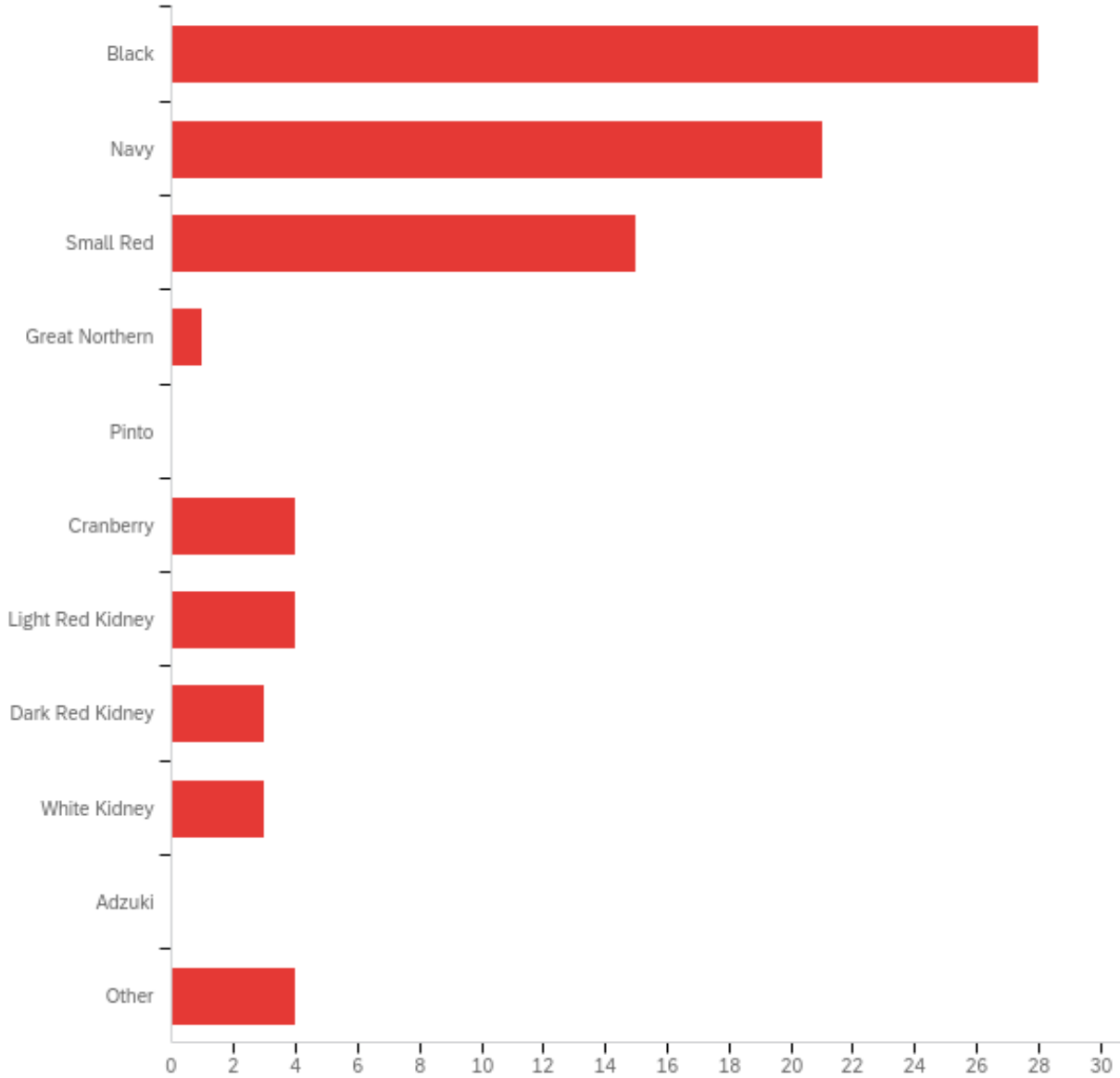
#	Answer	%	Count
1	Rain fed	66.67%	30
2	Irrigated	2.22%	1
3	Some are irrigated, some are not	26.67%	12
4	It changes from year to year	2.22%	1
6	Other	2.22%	1
	Total	100%	45

Q5 - On a five-year average our farm raises _____ acres of dry beans each year. (crop consultants please indicate the number of acres you consult on annually)

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	5	49.00	8000.00	1144.53	1852.04	3430043.55	40

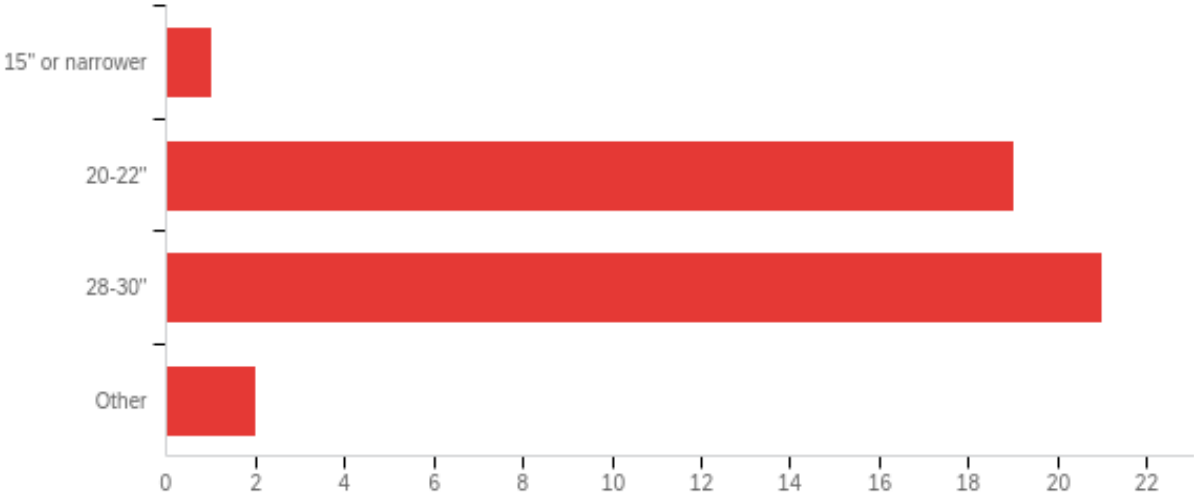


Q6 - In 2021 I raised _____ beans. (Please select all that apply)



#	Answer	%	Count
1	Black	33.73%	28
2	Navy	25.30%	21
3	Small Red	18.07%	15
4	Great Northern	1.20%	1
5	Pinto	0.00%	0
6	Cranberry	4.82%	4
7	Light Red Kidney	4.82%	4
8	Dark Red Kidney	3.61%	3
9	White Kidney	3.61%	3
10	Adzuki	0.00%	0
11	Other	4.82%	4
	Total	100%	83

Q7- What row width are you planting?



#	Answer	%	Count
1	15" or narrower	2.33%	1
2	20-22"	44.19%	19
3	28-30"	48.84%	21
5	Other	4.65%	2
	Total	100%	43

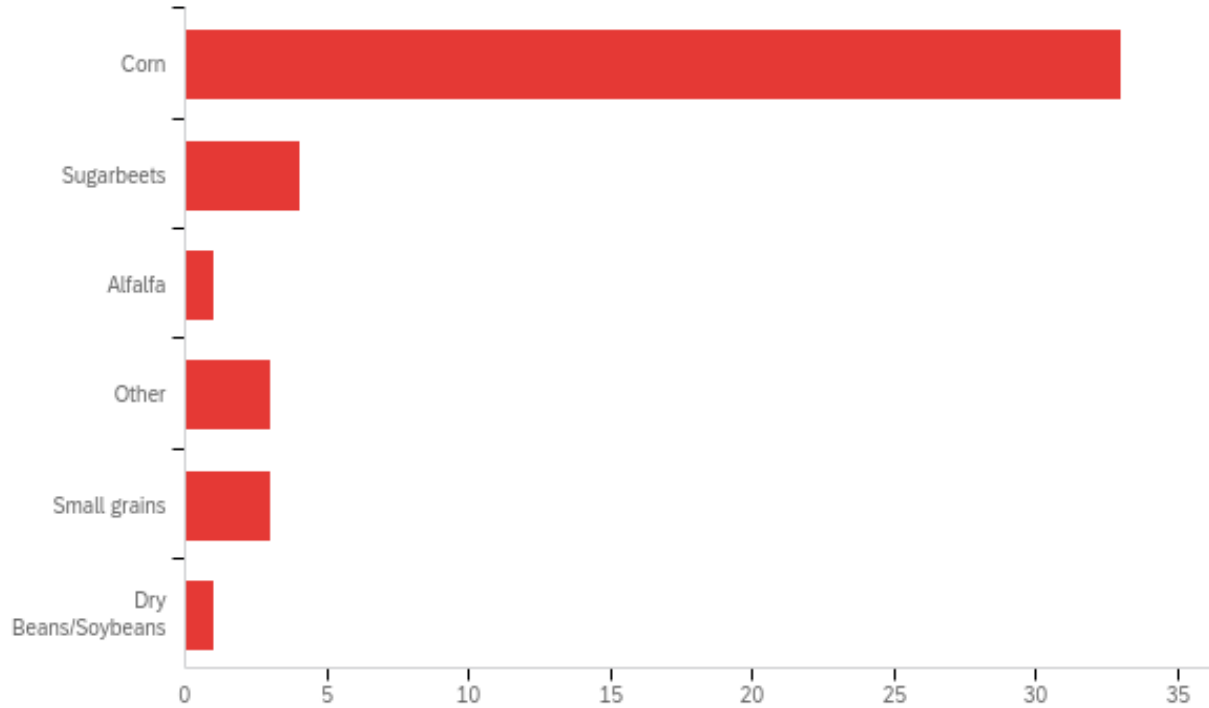
Q8 - I like to plant my dry beans at _____ thousand seeds per acre.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Black and Navy	73.00	130.00	109.08	11.40	130.02	37
2	S. Red, Pinto, and G. Northern	85.00	120.00	97.93	10.92	119.21	14
3	Kidney and Cranberry	60.00	95.00	76.00	10.12	102.36	11

Q9 - When do you like to plant your dry beans given the choice?

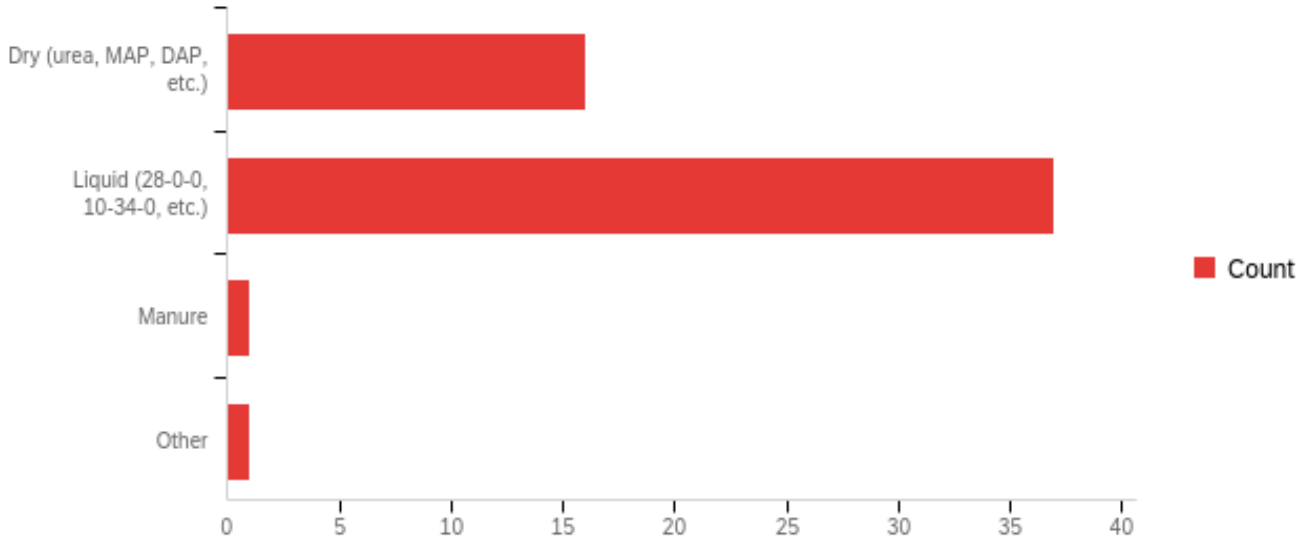
#	Answer	%	Count
1	3rd week of May	6.67%	3
2	4th week of May	11.11%	5
3	1st week of June	48.89%	22
4	2nd week of June	22.22%	10
5	3rd week of June	11.11%	5
6	4th week of June	0.00%	0
	Total	100%	45

Q10- Given a choice do you prefer to plant dry beans following:



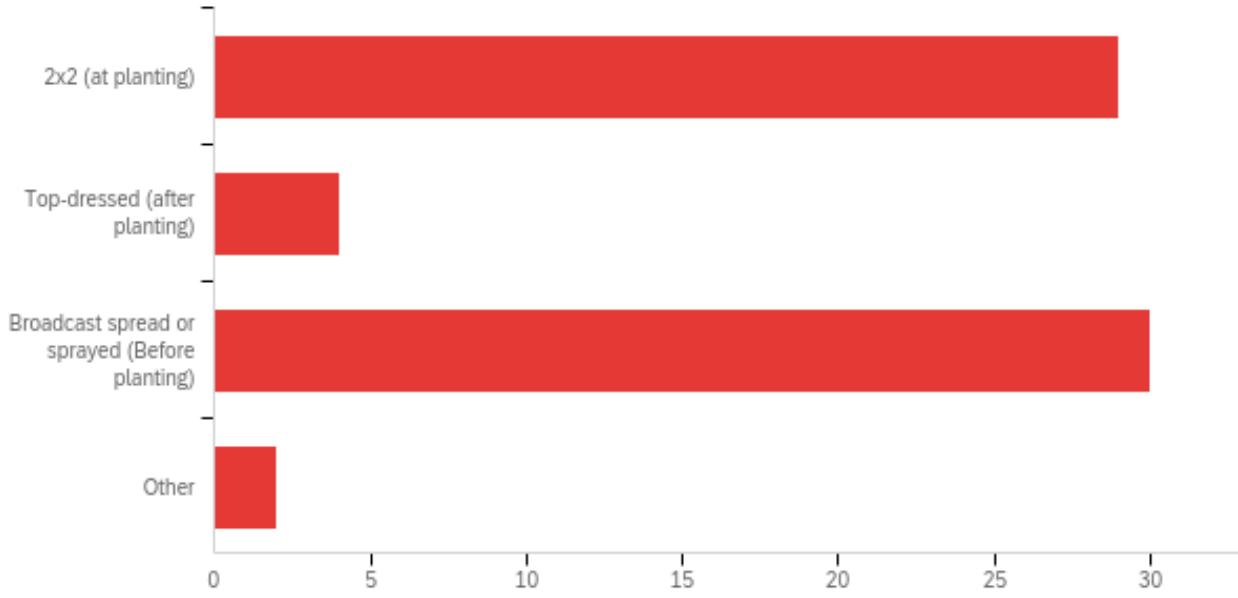
#	Answer	%	Count
1	Corn	73.33%	33
2	Sugarbeets	8.89%	4
3	Alfalfa	2.22%	1
4	Other	6.67%	3
5	Small grains	6.67%	3
6	Dry Beans/Soybeans	2.22%	1
	Total	100%	45

Q11 - Please select your normal source of nitrogen (please select all that apply)



#	Answer	%	Count
1	Dry (urea, MAP, DAP, etc.)	29.09%	16
2	Liquid (28-0-0, 10-34-0, etc.)	67.27%	37
4	Manure	1.82%	1
5	Other	1.82%	1
	Total	100%	55

Q12 - How and when do you apply nitrogen? (Please select all that apply)



#	Answer	%	Count
1	2x2 (at planting)	44.62%	29
2	Top-dressed (after planting)	6.15%	4
3	Broadcast spread or sprayed (Before planting)	46.15%	30
5	Other	3.08%	2
	Total	100%	65

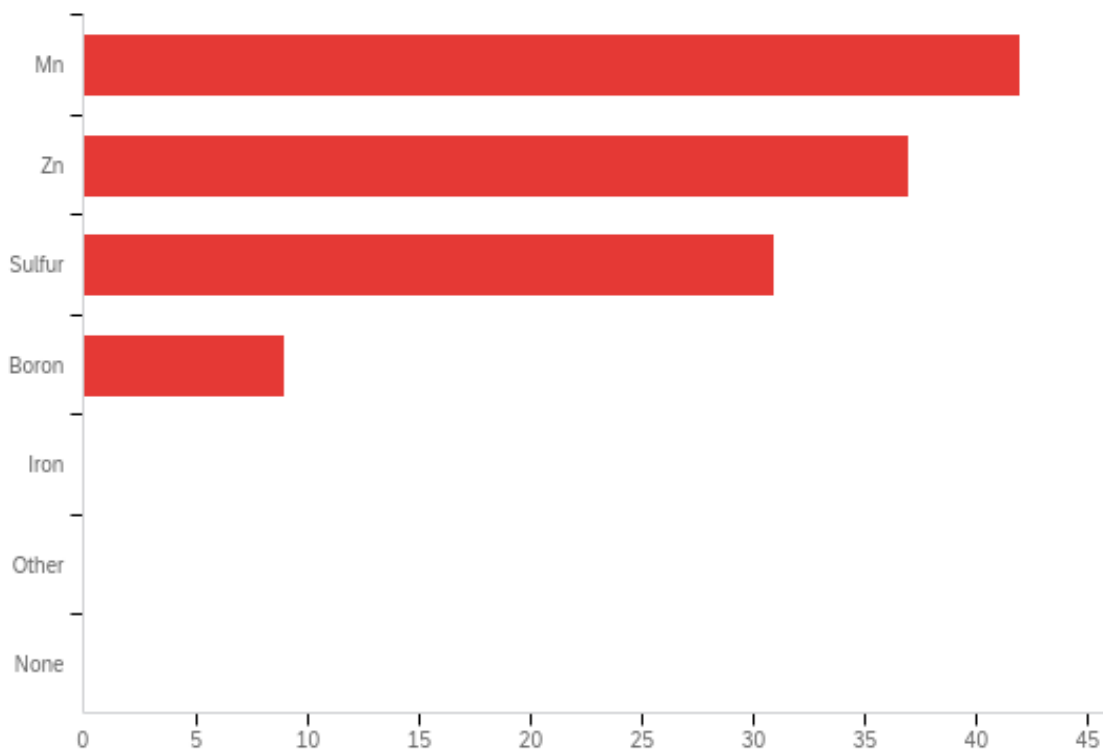
Q14- How many total pounds per acre of actual Phosphorus do you apply? (Please choose Not Applicable if Phosphorus is only applied based on a soil test prior to dry beans)

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	# Actual Phosphorus Per Acre	0.00	63.00	28.97	16.88	284.97	32

Q15- How many total pounds per acre of actual Potassium do you apply? (Please choose Not Applicable if Potassium is only applied based on a soil test prior to dry beans)

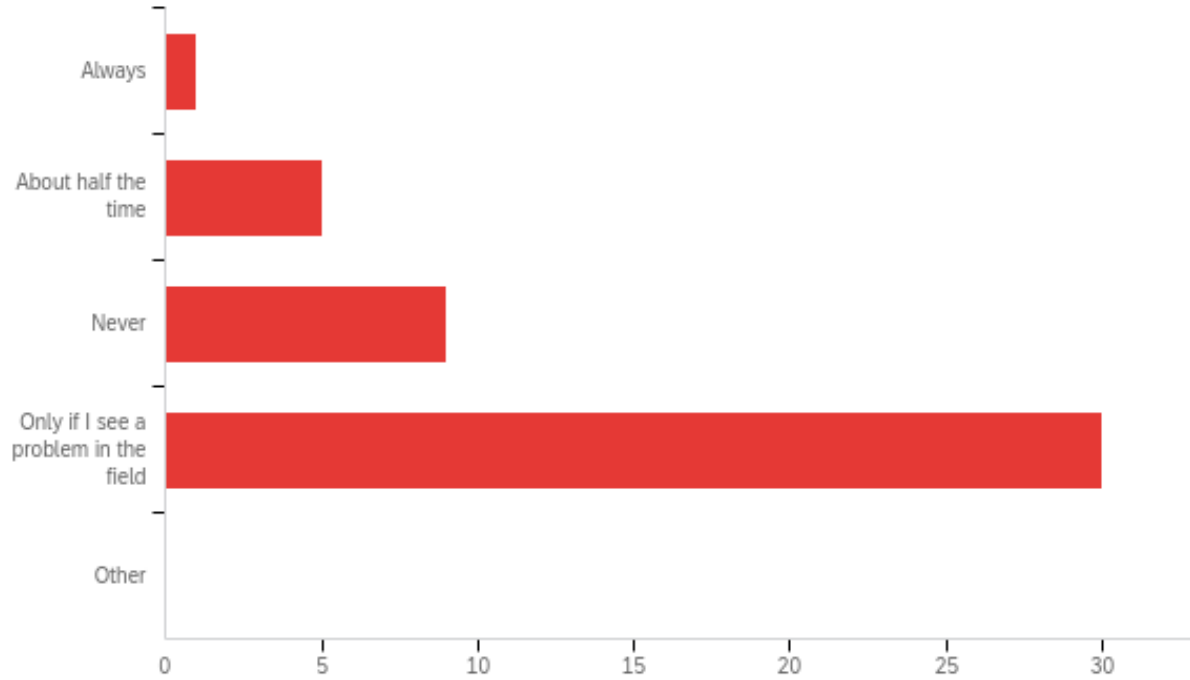
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	# Actual Potassium Per Acre	0.00	100.00	50.70	27.93	779.81	30

Q16 - What micro-nutrients do you apply to your dry bean crop? (Please select all that apply)



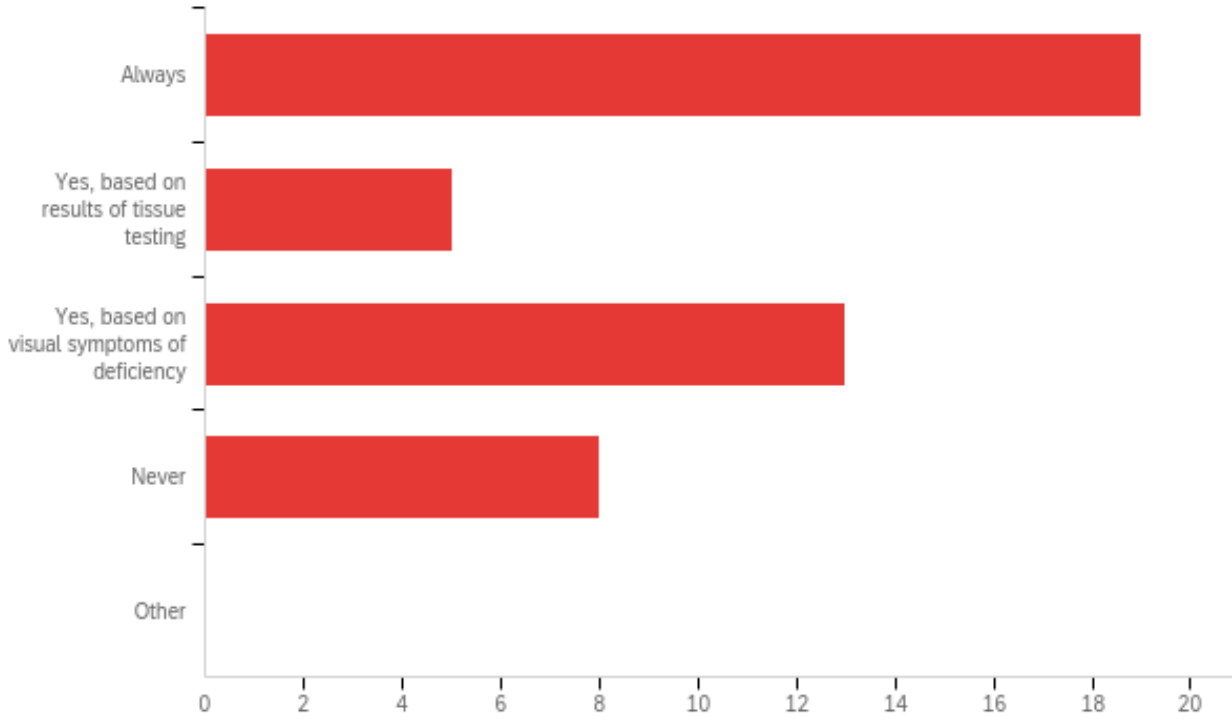
#	Answer	%	Count
1	Mn	35.29%	42
2	Zn	31.09%	37
3	Sulfur	26.05%	31
4	Boron	7.56%	9
5	Iron	0.00%	0
6	Other	0.00%	0
7	None	0.00%	0
	Total	100%	119

Q17 - Do you tissue test dry beans?



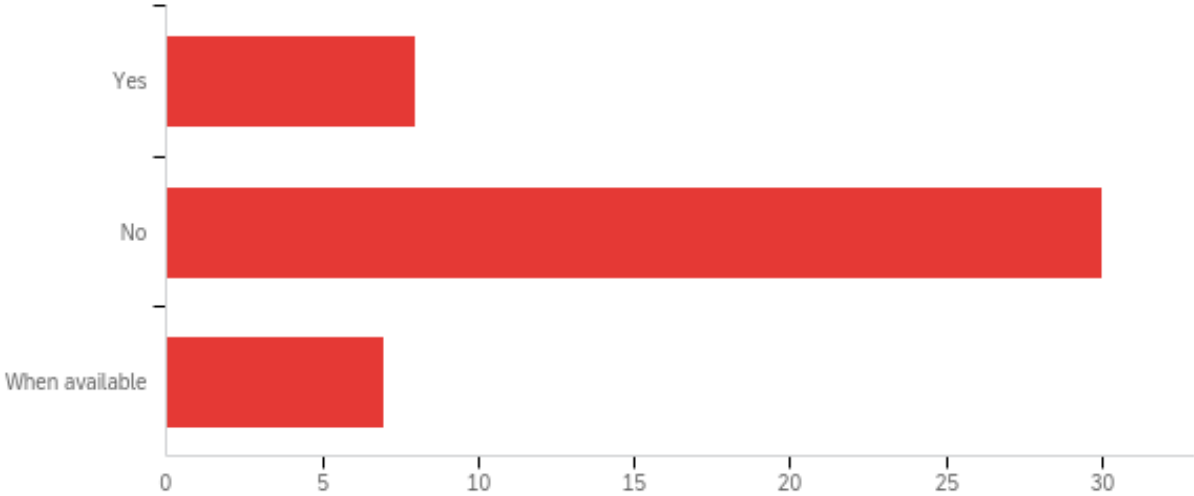
#	Answer	%	Count
1	Always	2.22%	1
2	About half the time	11.11%	5
3	Never	20.00%	9
4	Only if I see a problem in the field	66.67%	30
6	Other	0.00%	0
	Total	100%	45

Q18 - Do you foliar feed your dry bean crop?



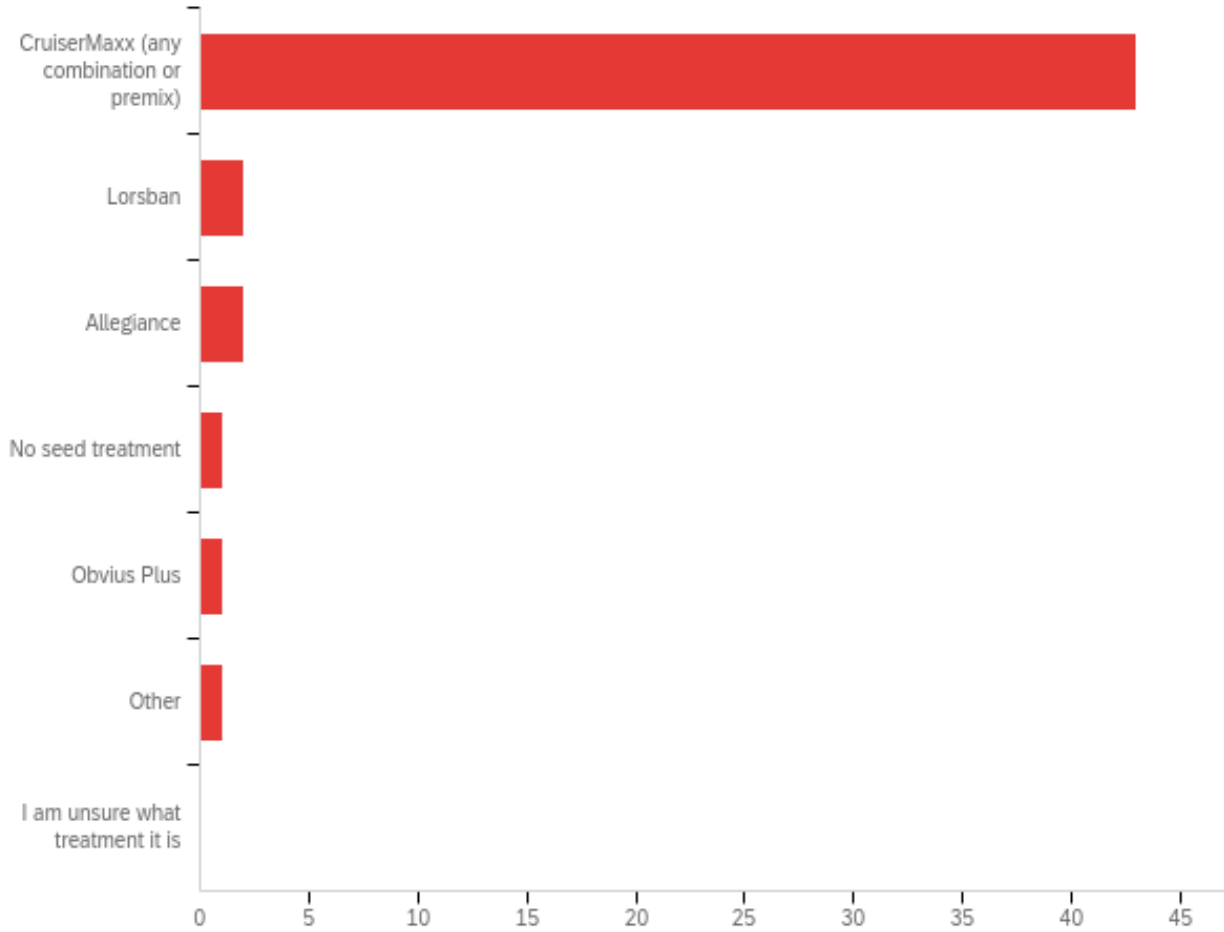
#	Answer	%	Count
1	Always	42.22%	19
2	Yes, based on results of tissue testing	11.11%	5
3	Yes, based on visual symptoms of deficiency	28.89%	13
6	Never	17.78%	8
8	Other	0.00%	0
	Total	100%	45

Q19 - Is manure part of your fertility program?



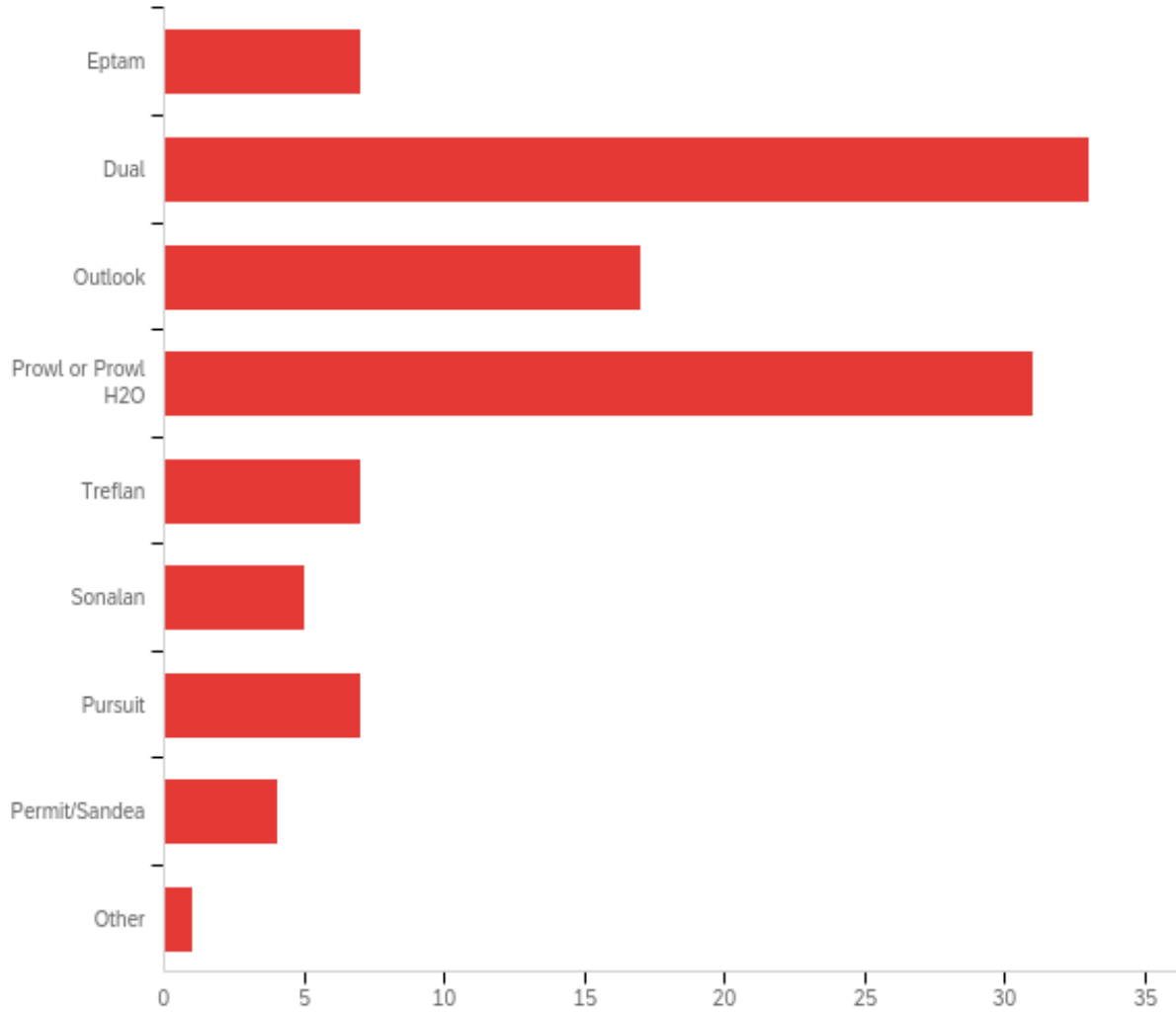
#	Answer	%	Count
1	Yes	17.78%	8
2	No	66.67%	30
3	When available	15.56%	7
	Total	100%	45

Q20- What is your most preferred seed treatment? (Please select all that apply)



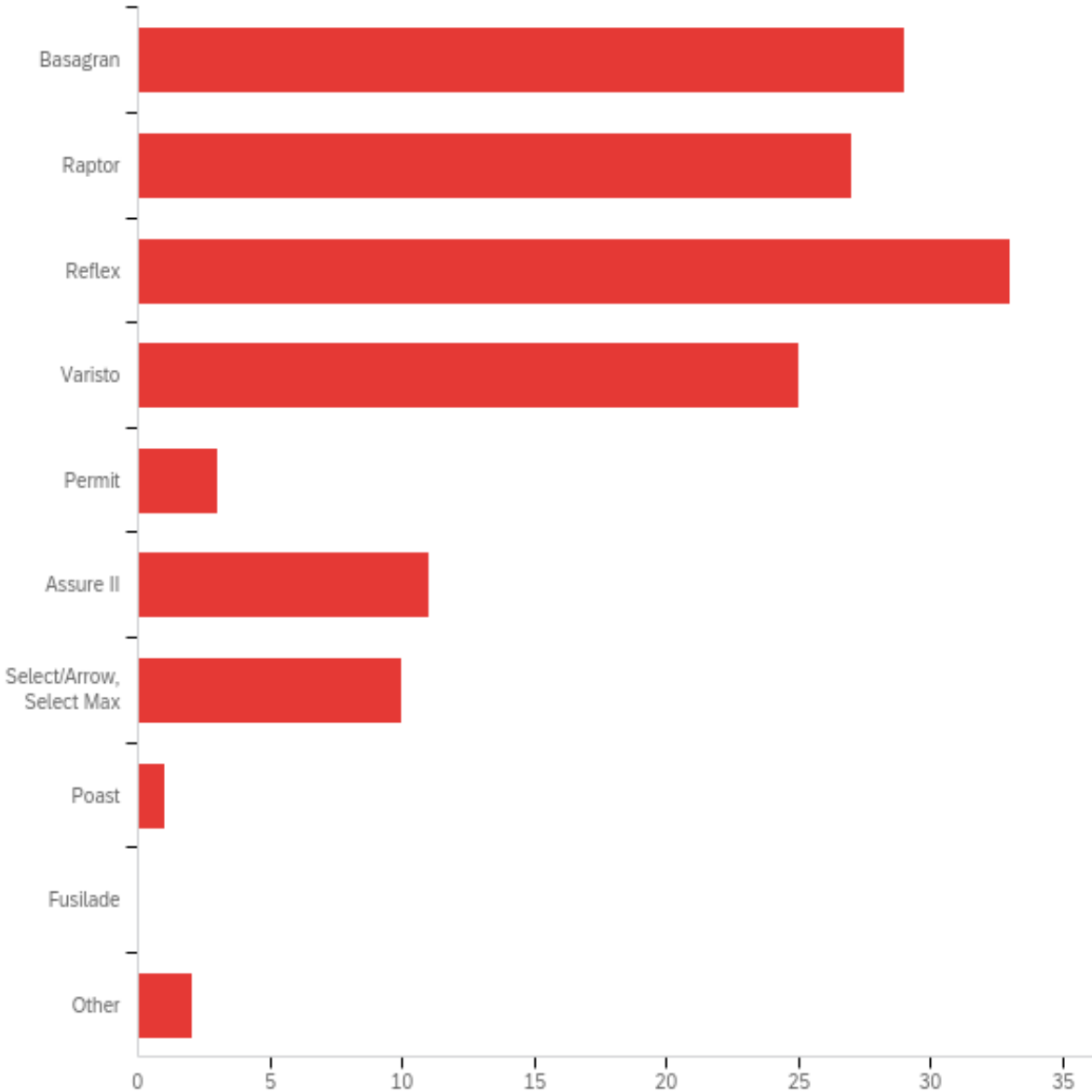
#	Answer	%	Count
1	CruiserMaxx (any combination or premix)	86.00%	43
3	Lorsban	4.00%	2
4	Allegiance	4.00%	2
5	No seed treatment	2.00%	1
6	Obvius Plus	2.00%	1
7	Other	2.00%	1
8	I am unsure what treatment it is	0.00%	0
	Total	100%	50

Q21 - What products are included in your preplant weed control? (Please select all that apply)



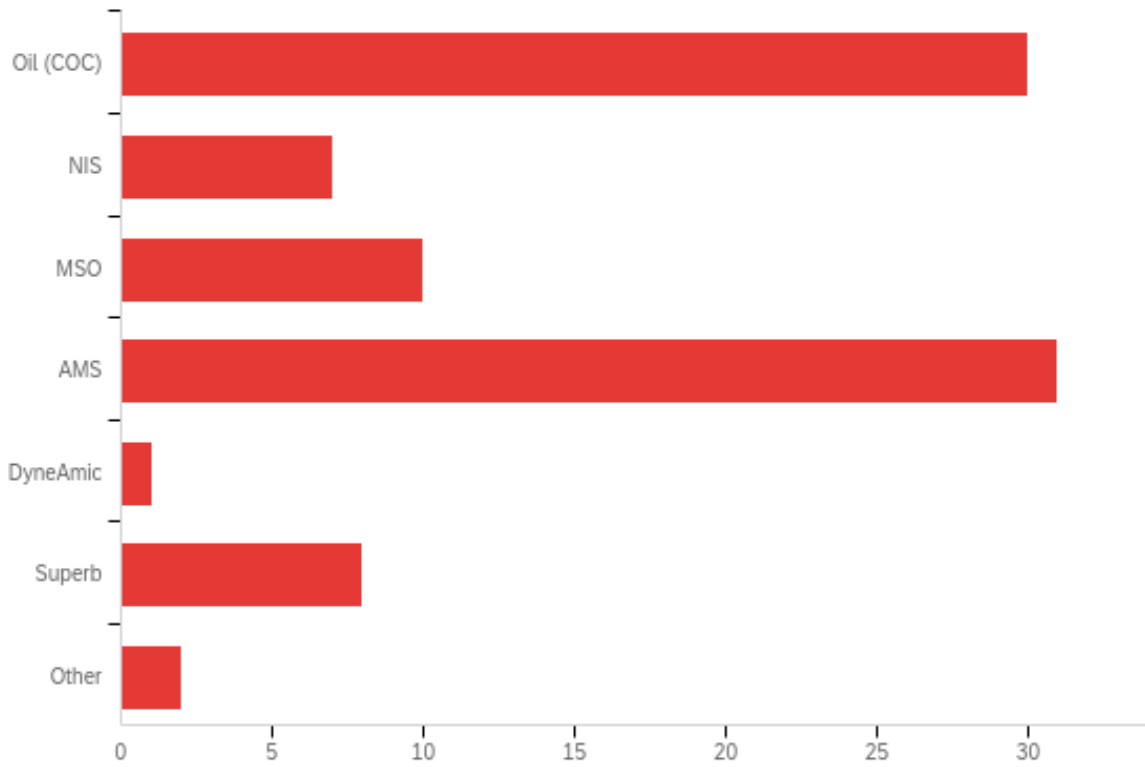
#	Answer	%	Count
1	Eptam	6.25%	7
2	Dual	29.46%	33
3	Outlook	15.18%	17
4	Prowl or Prowl H2O	27.68%	31
5	Treflan	6.25%	7
6	Sonalan	4.46%	5
7	Pursuit	6.25%	7
8	Permit/Sandea	3.57%	4
9	Other	0.89%	1
	Total	100%	112

Q22- What products are included in your POST weed control program? (Please select all that apply)



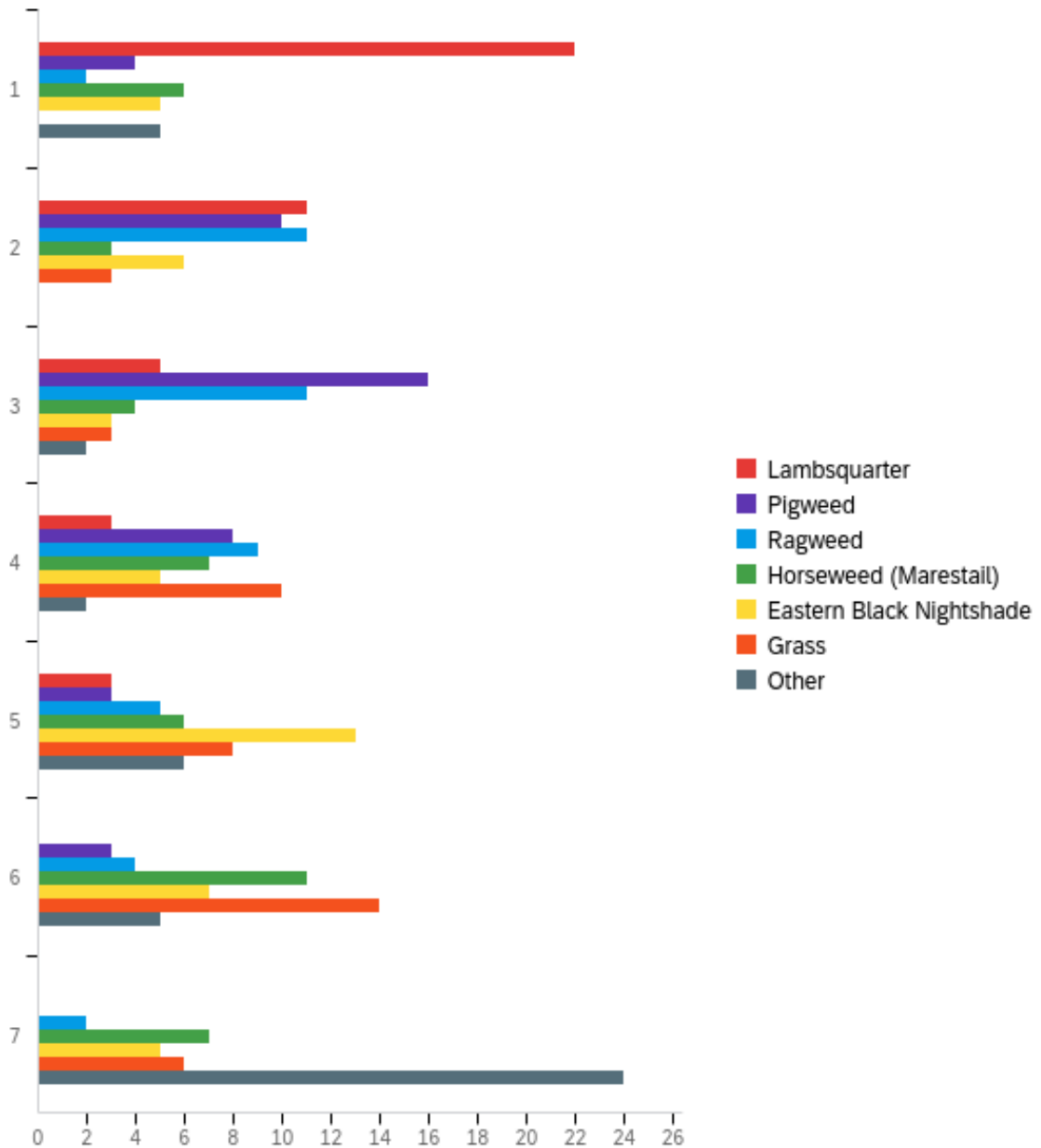
#	Answer	%	Count
1	Basagran	20.57%	29
2	Raptor	19.15%	27
3	Reflex	23.40%	33
4	Varisto	17.73%	25
5	Permit	2.13%	3
6	Assure II	7.80%	11
7	Select/Arrow, Select Max	7.09%	10
8	Poast	0.71%	1
9	Fusilade	0.00%	0
10	Other	1.42%	2
	Total	100%	141

Q23 - What adjuvant products are used in your POST weed control program? (Please select all that apply)



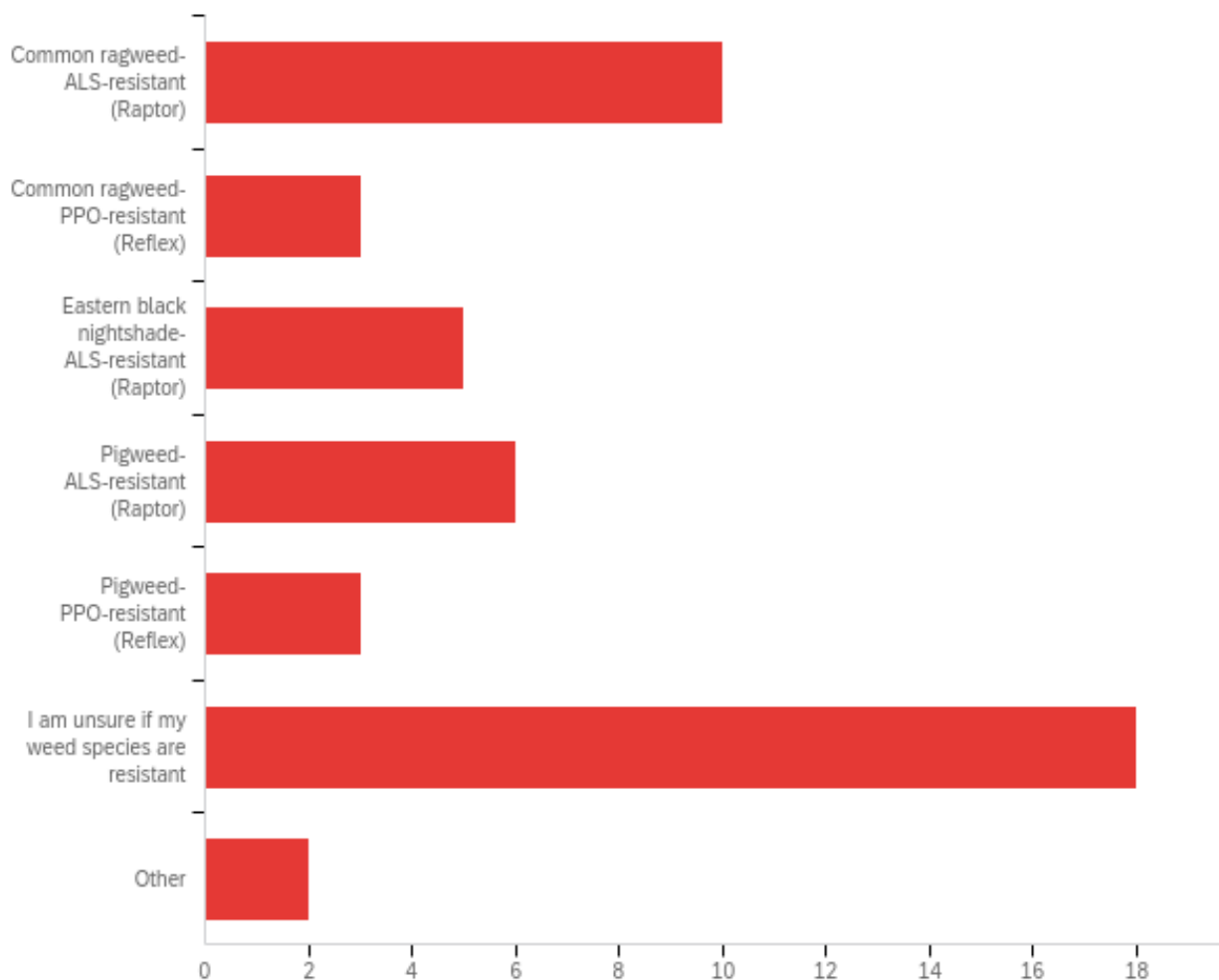
#	Answer	%	Count
1	Oil (COC)	33.71%	30
2	NIS	7.87%	7
3	MSO	11.24%	10
4	AMS	34.83%	31
5	DyneAmic	1.12%	1
6	Superb	8.99%	8
7	Other	2.25%	2
	Total	100%	89

Q24- Given your current weed control program, please rank the following weed species are most likely to escape control? Most likely to escape (1) to the least likely to escape control (7). (Select and drag the most likely to escape choice to the top of the list)



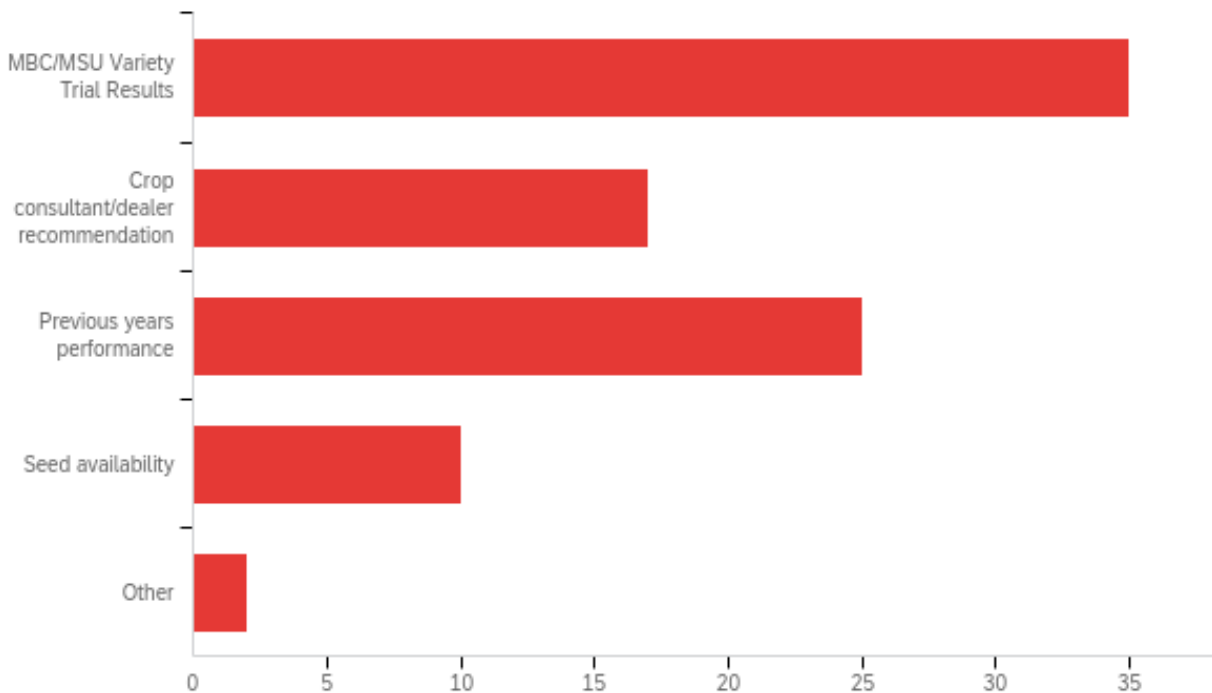
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Lambsquarter	1.00	5.00	1.95	1.22	1.50	44
2	Pigweed	1.00	6.00	3.11	1.28	1.65	44
3	Ragweed	1.00	7.00	3.55	1.53	2.34	44
5	Eastern Black Nightshade	1.00	7.00	4.27	1.88	3.52	44
4	Horseweed (Marestail)	1.00	7.00	4.48	1.98	3.93	44
6	Grass	2.00	7.00	5.02	1.41	1.98	44
7	Other	1.00	7.00	5.61	1.99	3.96	44

Q25 - Do you have any of the following resistant weeds in your dry bean fields? (Please select all that apply)



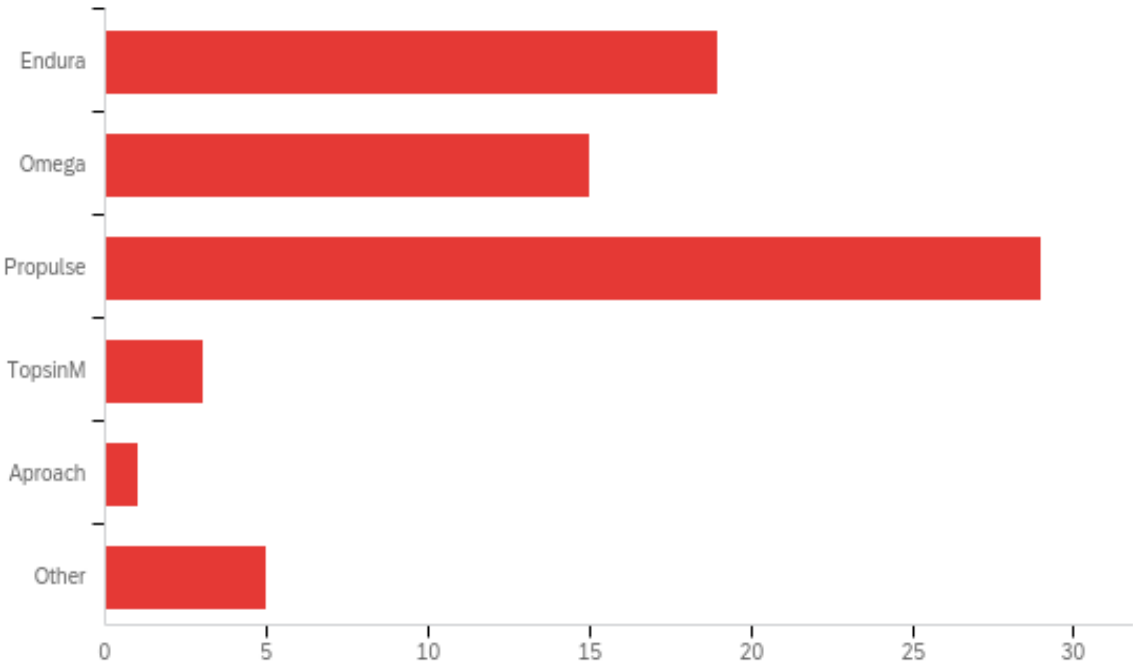
#	Answer	%	Count
1	Common ragweed- ALS-resistant (Raptor)	21.28%	10
2	Common ragweed- PPO-resistant (Reflex)	6.38%	3
3	Eastern black nightshade- ALS-resistant (Raptor)	10.64%	5
4	Pigweed- ALS-resistant (Raptor)	12.77%	6
5	Pigweed- PPO-resistant (Reflex)	6.38%	3
7	I am unsure if my weed species are resistant	38.30%	18
8	Other	4.26%	2
	Total	100%	47

Q26 - How do you select what dry bean variety or varieties you choose to plant? (Please select all that apply)



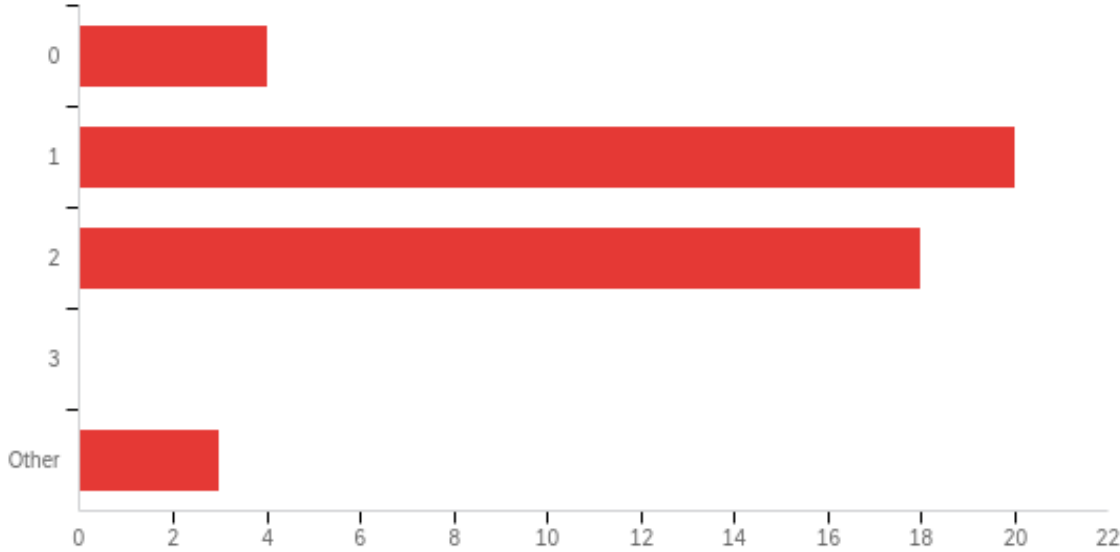
#	Answer	%	Count
1	MBC/MSU Variety Trial Results	39.33%	35
2	Crop consultant/dealer recommendation	19.10%	17
3	Previous years performance	28.09%	25
4	Seed availability	11.24%	10
5	Other	2.25%	2
	Total	100%	89

Q27 - What is your most preferred white mold treatment? (Please select all that apply, example: multiple applications or mixtures)



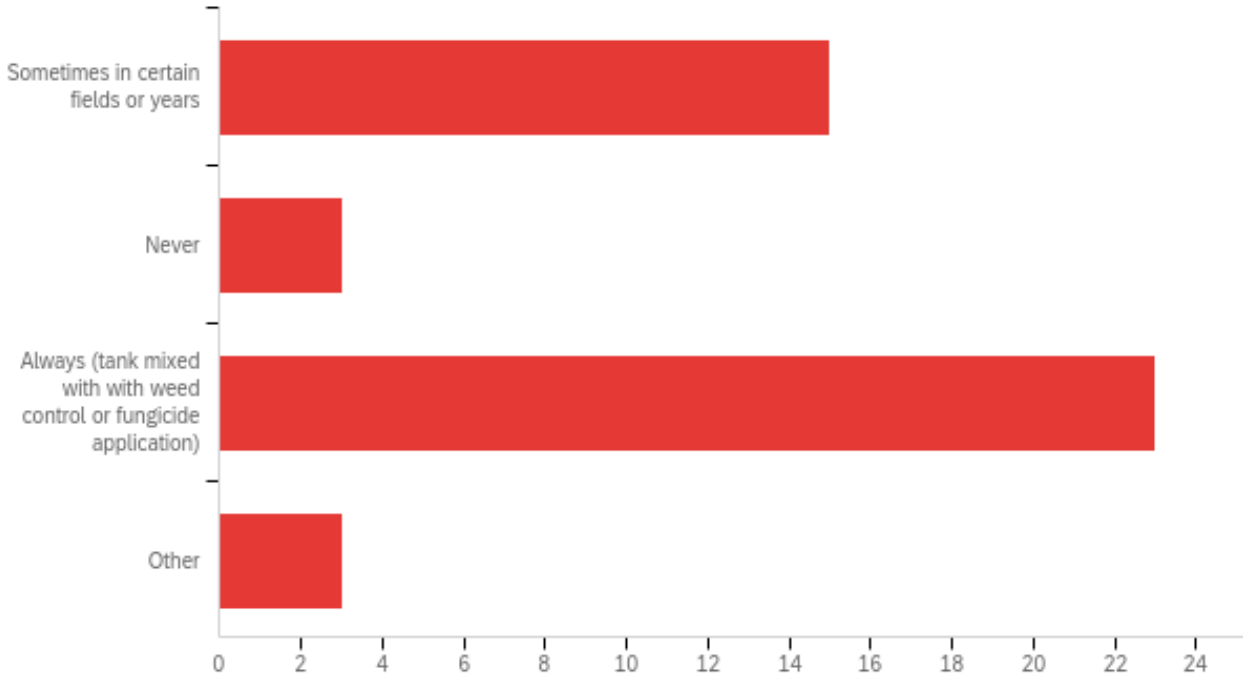
#	Answer	%	Count
1	Endura	26.39%	19
2	Omega	20.83%	15
3	Propulse	40.28%	29
4	TopsinM	4.17%	3
5	Aproach	1.39%	1
6	Other	6.94%	5
	Total	100%	72

Q28 - On a 5 year average, how many white mold fungicide applications do you plan?



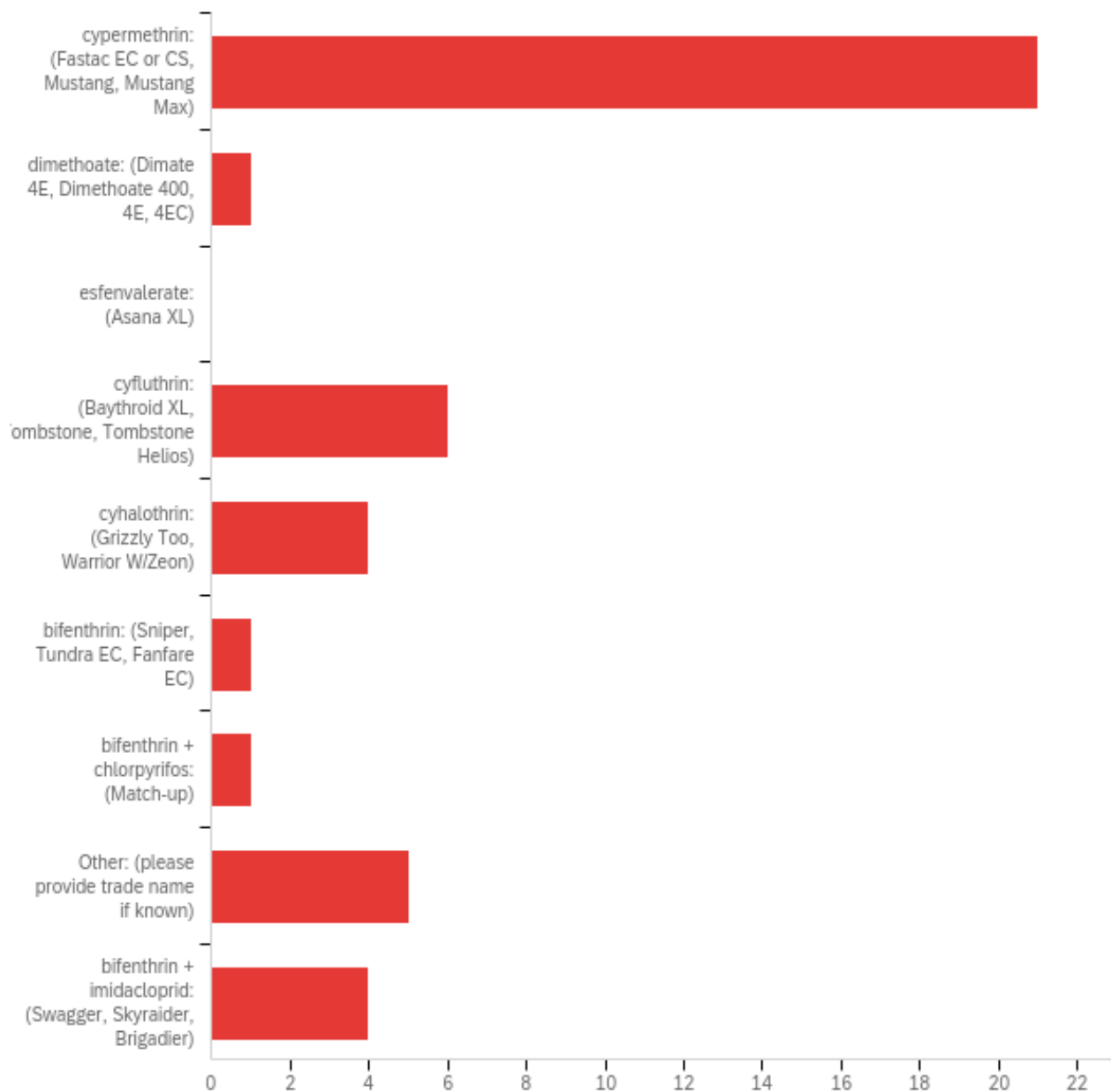
#	Answer	%	Count
1	0	8.89%	4
2	1	44.44%	20
3	2	40.00%	18
4	3	0.00%	0
6	Other	6.67%	3
	Total	100%	45

Q29 - Do you use a foliar insecticide?



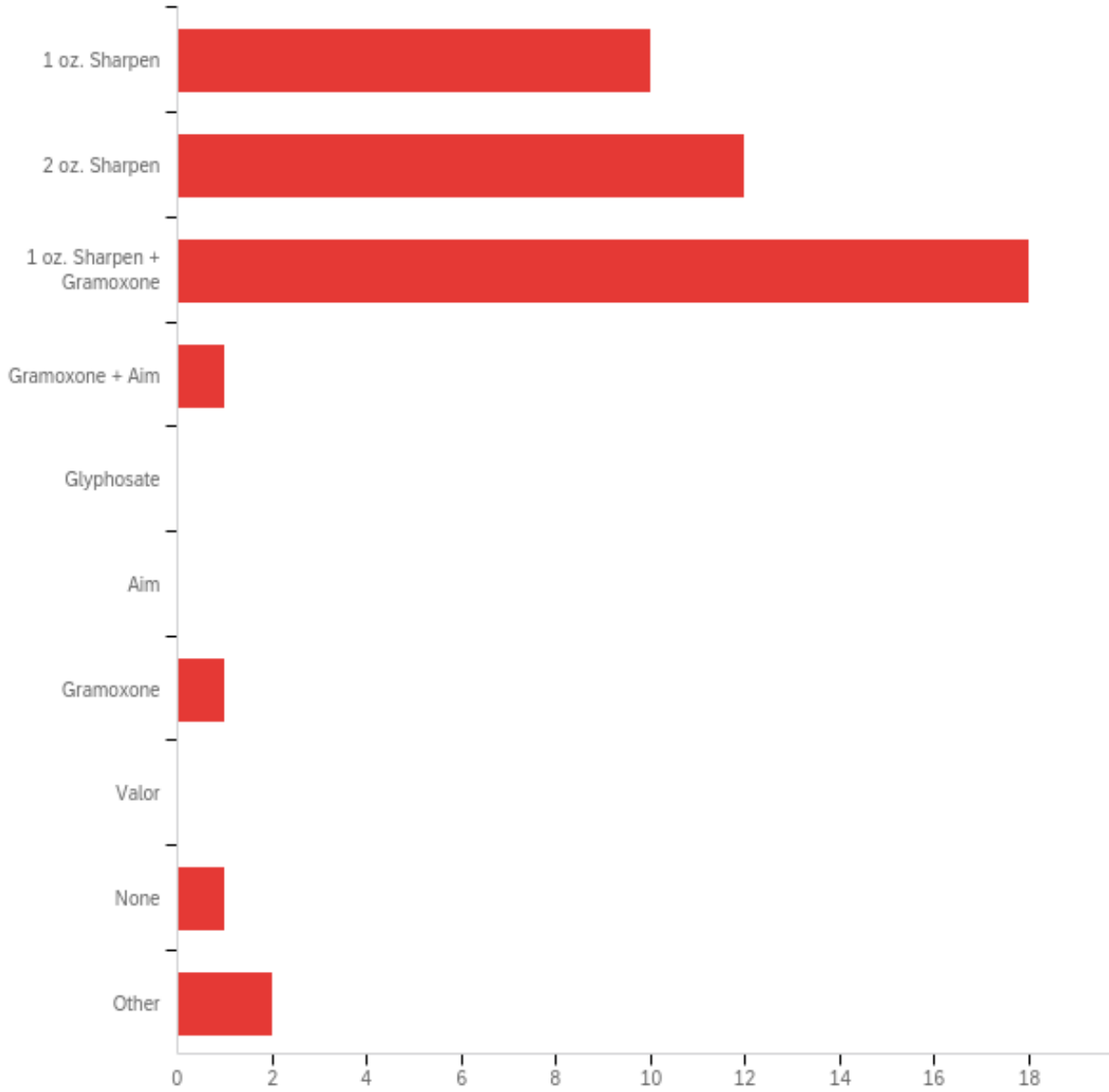
#	Answer	%	Count
1	Sometimes in certain fields or years	34.09%	15
2	Never	6.82%	3
4	Always (tank mixed with weed control or fungicide application)	52.27%	23
5	Other	6.82%	3
	Total	100%	44

Q30 - What is your most preferred/used insecticide?



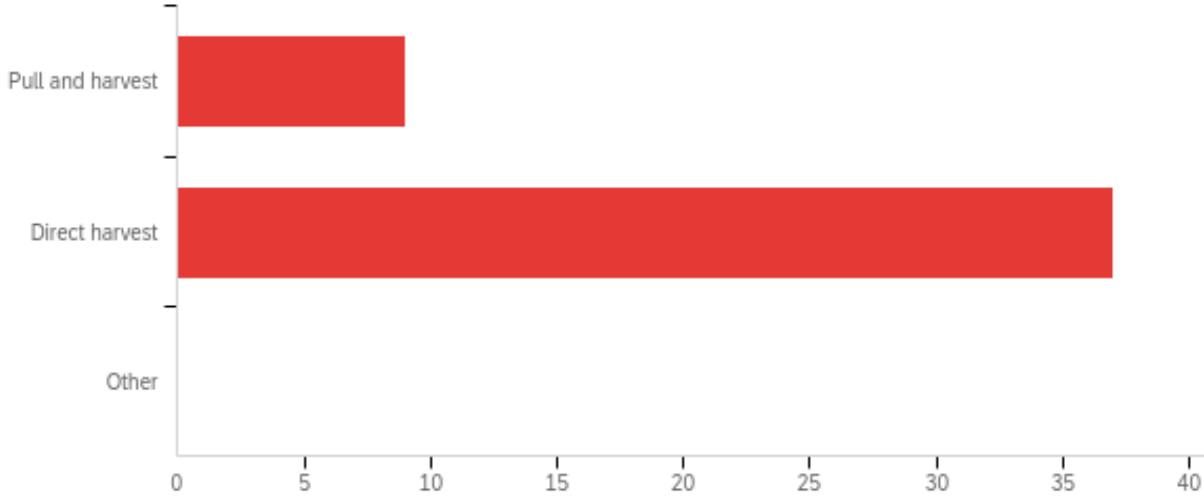
#	Answer	%	Count
1	cypermethrin: (Fastac EC or CS, Mustang, Mustang Max)	48.84%	21
2	dimethoate: (Dimate 4E, Dimethoate 400, 4E, 4EC)	2.33%	1
3	esfenvalerate: (Asana XL)	0.00%	0
4	cyfluthrin: (Baythroid XL, Tombstone, Tombstone Helios)	13.95%	6
5	cyhalothrin: (Grizzly Too, Warrior W/Zeon)	9.30%	4
6	bifenthrin: (Sniper, Tundra EC, Fanfare EC)	2.33%	1
7	bifenthrin + chlorpyrifos: (Match-up)	2.33%	1
8	Other: (please provide trade name if known)	11.63%	5
9	bifenthrin + imidacloprid: (Swagger, Skyraider, Brigadier)	9.30%	4
	Total	100%	43

Q31 - What is your most preferred harvest aid?



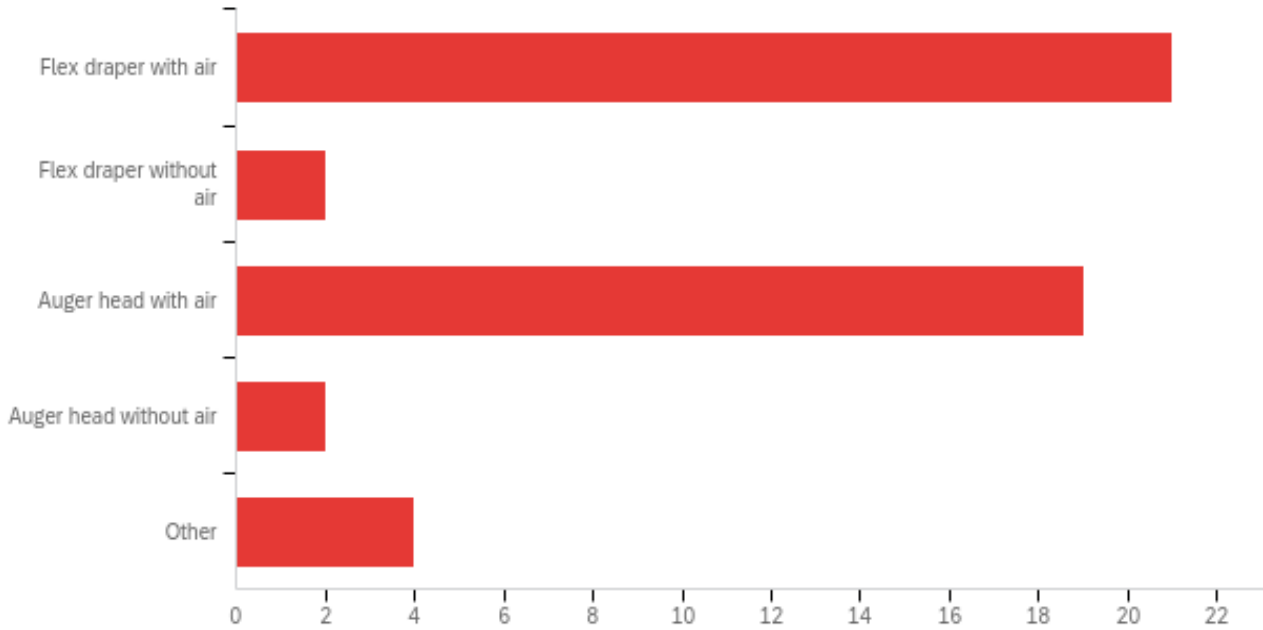
#	Answer	%	Count
1	1 oz. Sharpen	22.22%	10
2	2 oz. Sharpen	26.67%	12
3	1 oz. Sharpen + Gramoxone	40.00%	18
4	Gramoxone + Aim	2.22%	1
5	Glyphosate	0.00%	0
6	Aim	0.00%	0
7	Gramoxone	2.22%	1
8	Valor	0.00%	0
9	None	2.22%	1
10	Other	4.44%	2
	Total	100%	45

Q32 - What is the preferred method of dry bean harvest on your farm? (Please select all that apply)



#	Answer	%	Count
1	Pull and harvest	19.57%	9
2	Direct harvest	80.43%	37
4	Other	0.00%	0
	Total	100%	46

Q33 - What kind of head is on your combine? (Please select all that apply if using multiple combines for dry bean harvest)

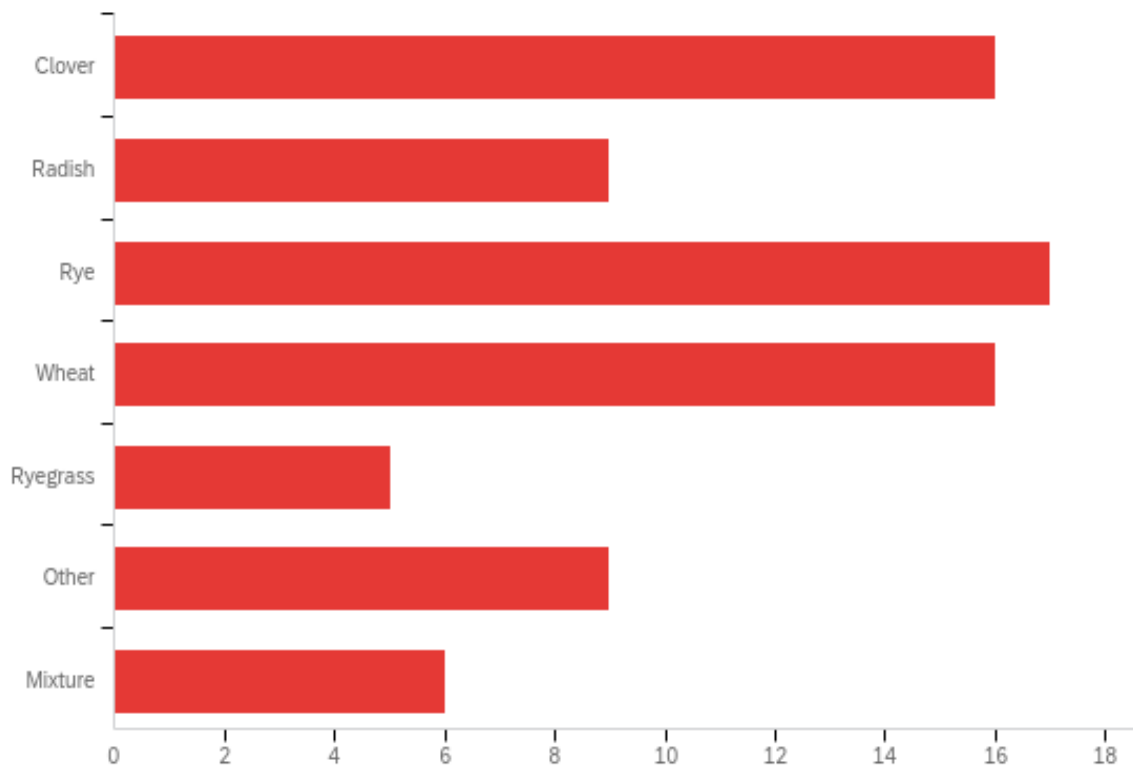


#	Answer	%	Count
1	Flex draper with air	43.75%	21
2	Flex draper without air	4.17%	2
3	Auger head with air	39.58%	19
4	Auger head without air	4.17%	2
5	Other	8.33%	4
	Total	100%	48

Q34 - What percentage of your farm acres would have a cover crop?

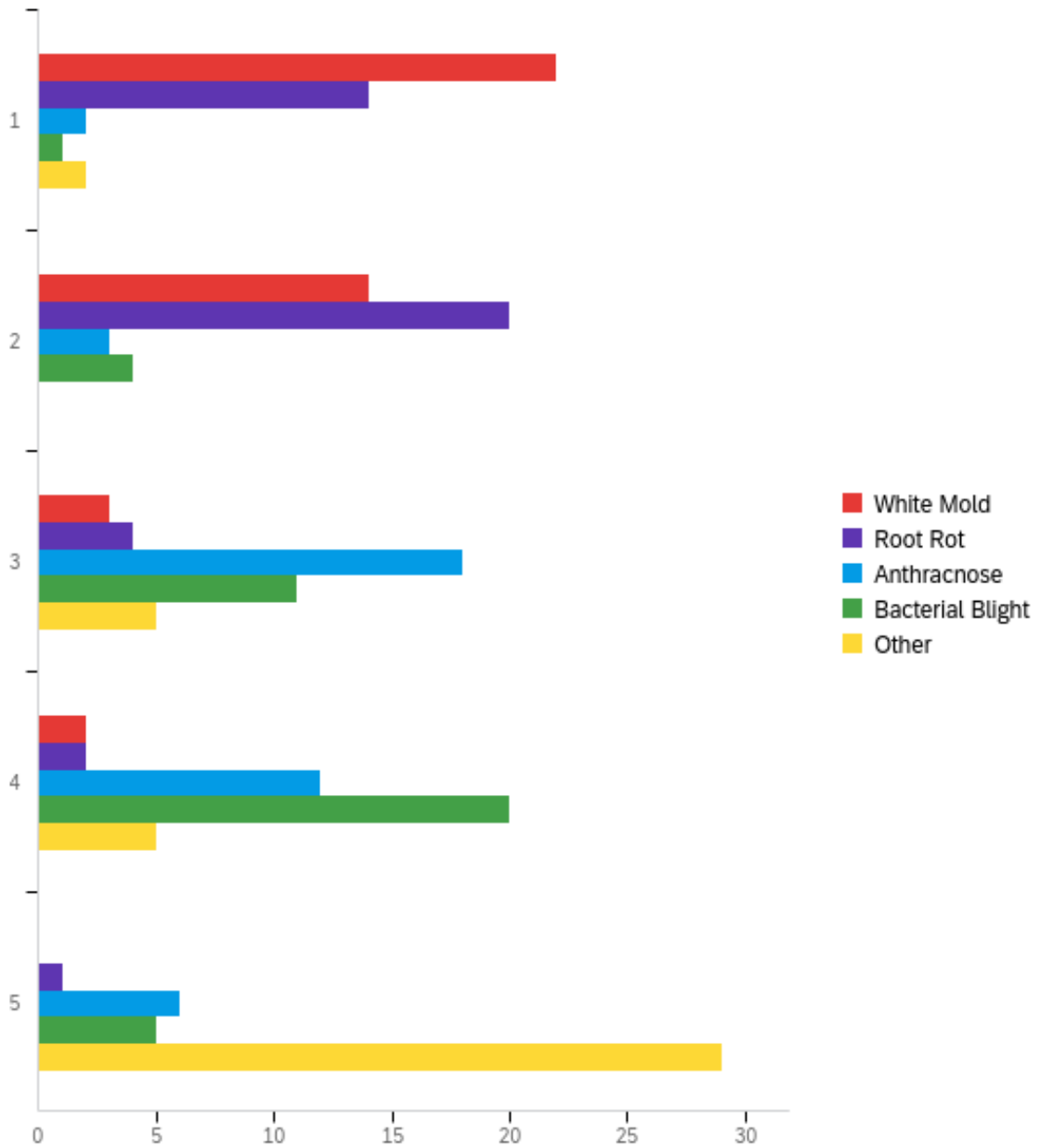
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	6	0.00	100.00	44.67	24.01	576.27	40

Q35- What is your most preferred cover crop? (Please select all that apply)



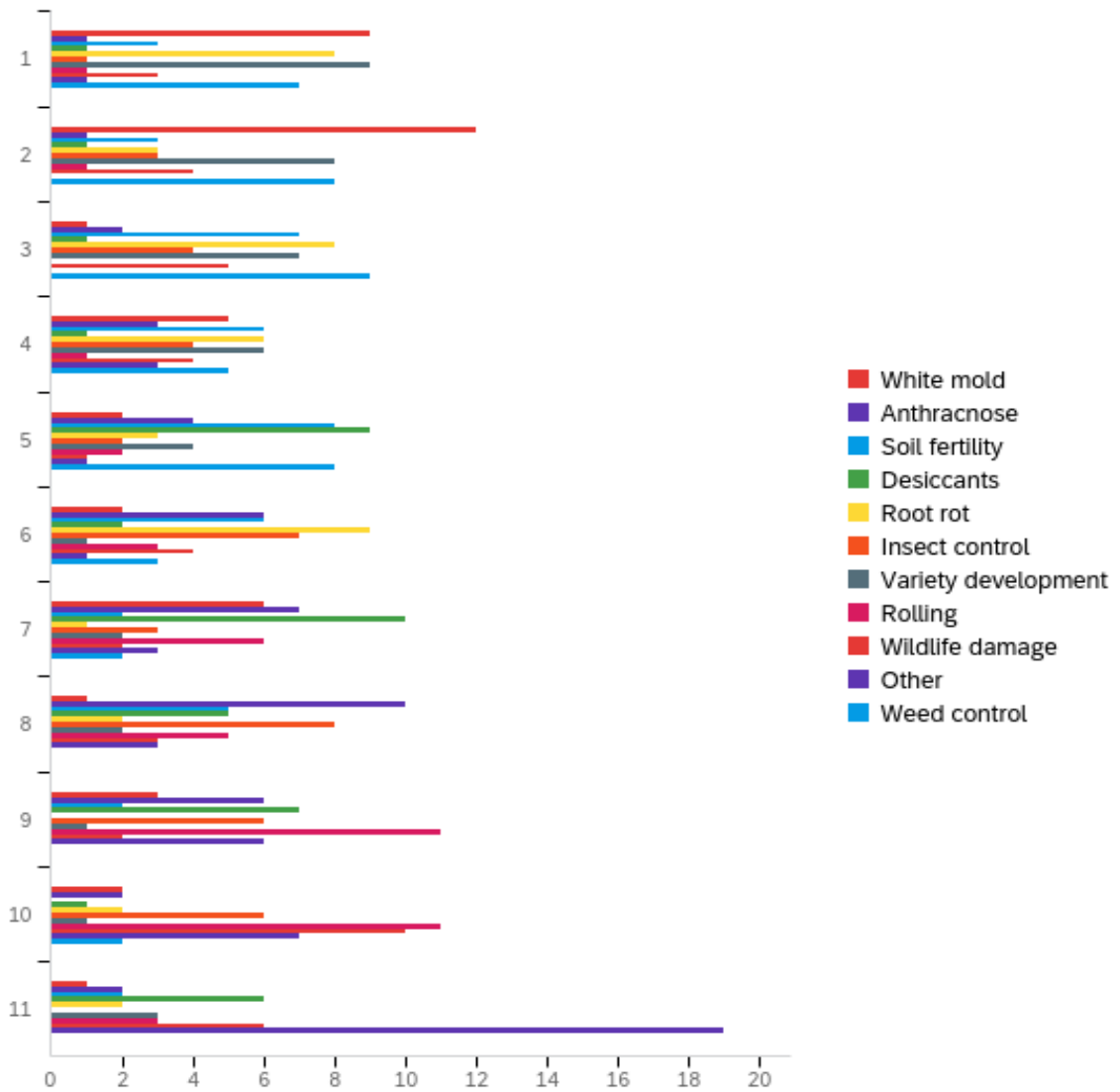
#	Answer	%	Count
1	Clover	20.51%	16
2	Radish	11.54%	9
3	Rye	21.79%	17
4	Wheat	20.51%	16
5	Ryegrass	6.41%	5
6	Other	11.54%	9
8	Mixture	7.69%	6
	Total	100%	78

Q36 - What dry bean disease causes the highest yield loss on your farm? (Select and drag the choice with the highest yield loss to the top of the list)



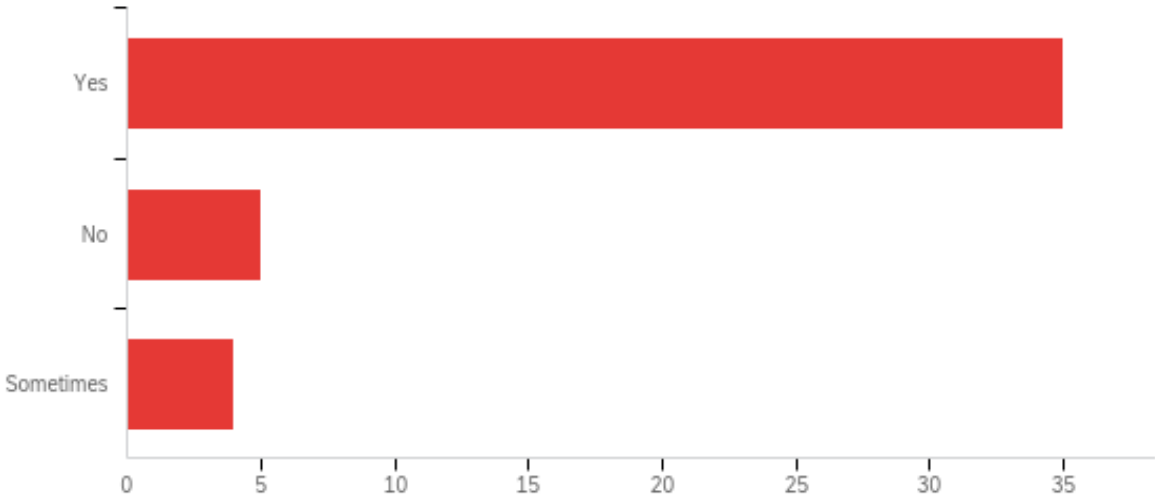
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	White Mold	1.00	4.00	1.63	0.82	0.67	41
2	Root Rot	1.00	5.00	1.93	0.92	0.85	41
3	Anthracnose	1.00	5.00	3.41	0.99	0.97	41
4	Bacterial Blight	1.00	5.00	3.59	0.91	0.83	41
5	Other	1.00	5.00	4.44	1.04	1.08	41

Q37 - Please rank what areas of dry bean production need further researcher to help increase dry bean yields on your farm? (Please select and drag the preferred choice to the top of the list)



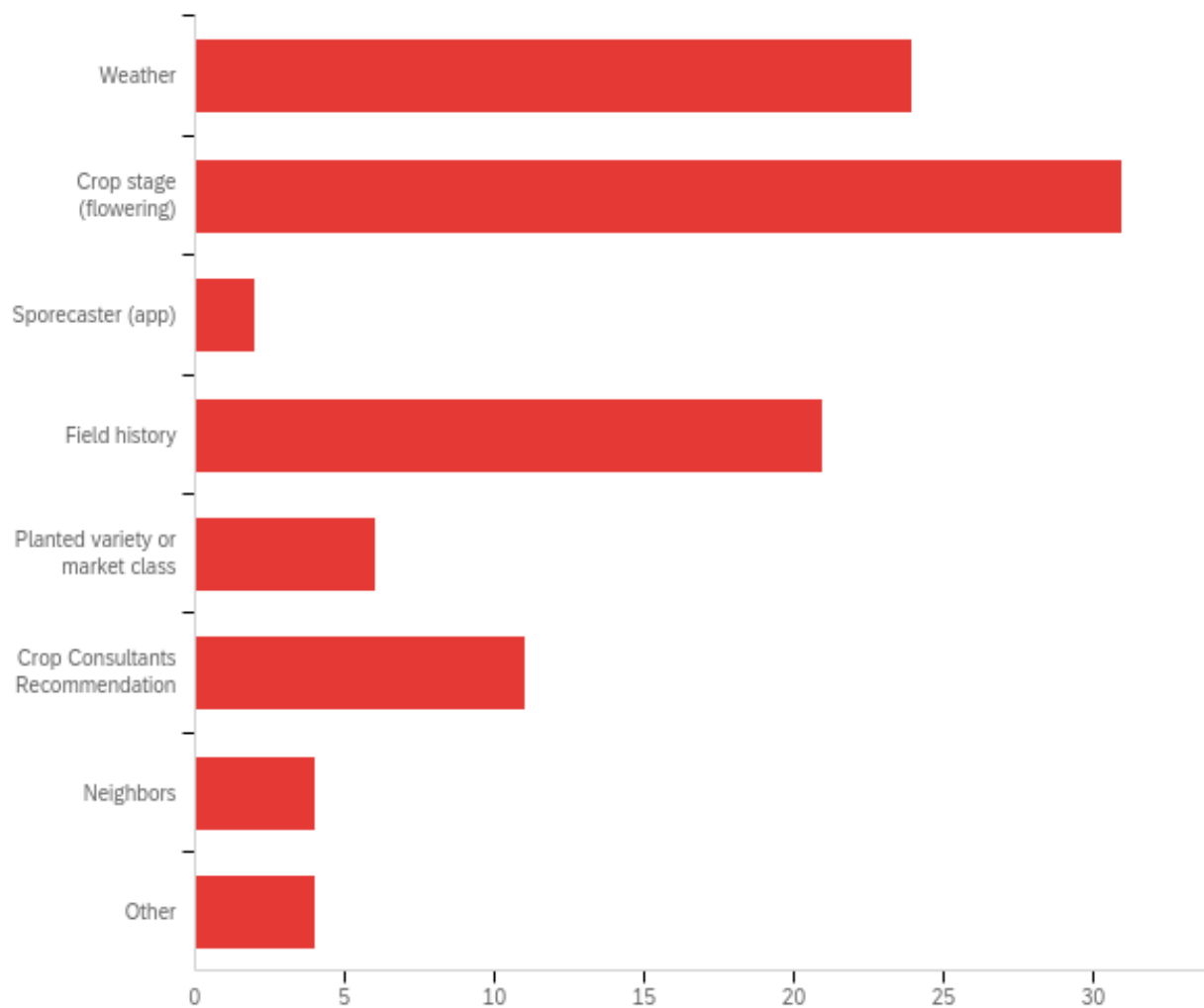
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
6	Weed control	1.00	10.00	3.68	2.18	4.76	44
8	Variety development	1.00	11.00	4.05	2.96	8.77	44
1	White mold	1.00	11.00	4.23	3.03	9.18	44
2	Root rot	1.00	11.00	4.45	2.75	7.57	44
4	Soil fertility	1.00	11.00	5.09	2.48	6.17	44
7	Insect control	1.00	10.00	6.50	2.62	6.84	44
10	Wildlife damage	1.00	11.00	6.66	3.45	11.91	44
3	Anthracnose	1.00	11.00	6.86	2.26	5.12	44
5	Desiccants	1.00	11.00	7.18	2.43	5.92	44
9	Rolling	1.00	11.00	8.16	2.23	4.95	44
11	Other	1.00	11.00	9.14	2.44	5.94	44

Q38 - When applying nitrogen, do you prefer to also include sulfur?



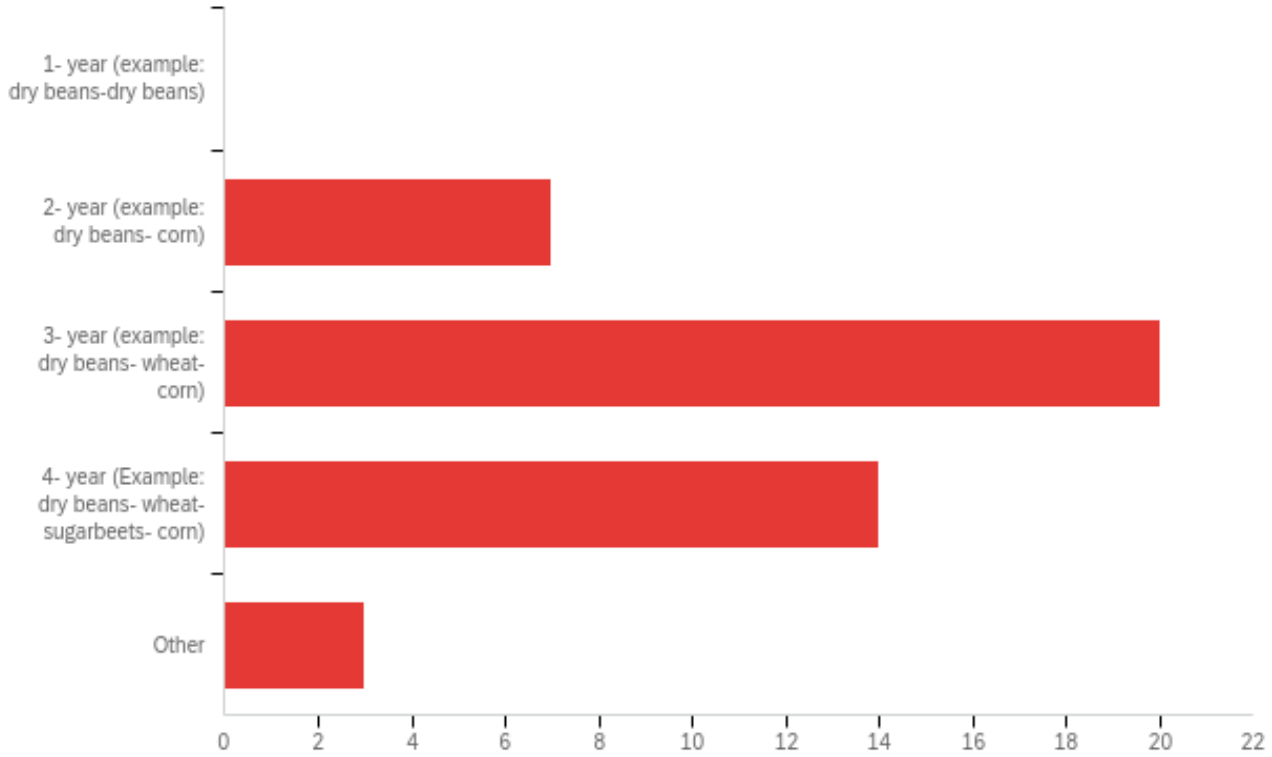
#	Answer	%	Count
1	Yes	79.55%	35
2	No	11.36%	5
3	Sometimes	9.09%	4
	Total	100%	44

Q39- How do you determine when or if you will apply a white mold fungicide? (Please check all that apply)



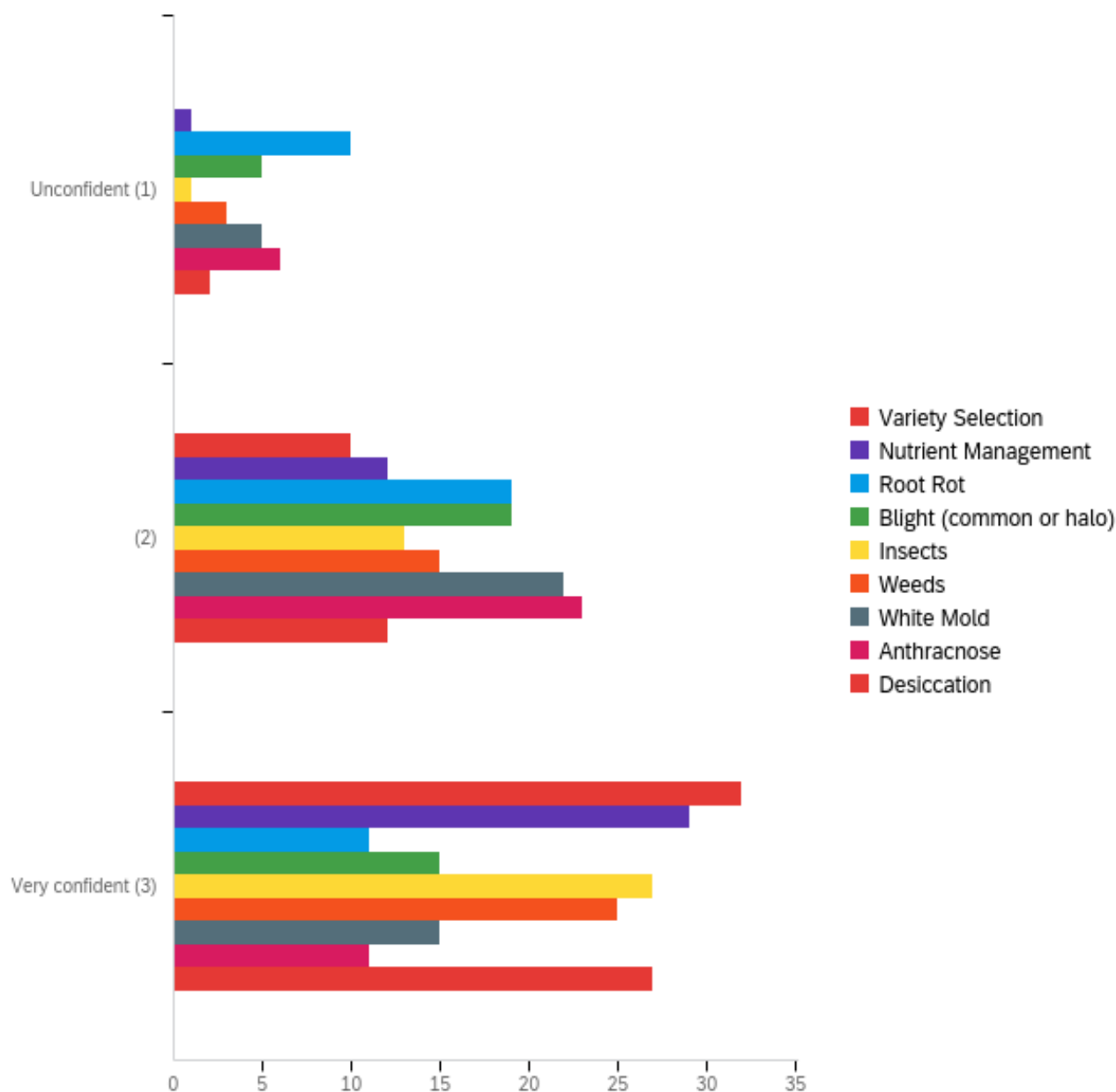
#	Answer	%	Count
1	Weather	23.30%	24
2	Crop stage (flowering)	30.10%	31
3	Sporecaster (app)	1.94%	2
4	Field history	20.39%	21
5	Planted variety or market class	5.83%	6
6	Crop Consultants Recommendation	10.68%	11
7	Neighbors	3.88%	4
8	Other	3.88%	4
	Total	100%	103

Q40 - How many year rotation are your dry beans in?



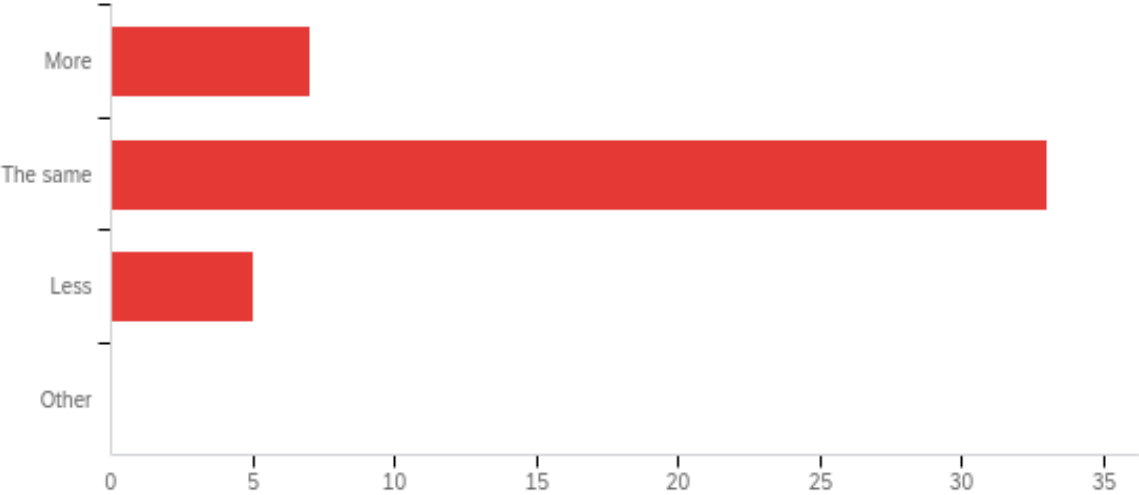
#	Answer	%	Count
1	1- year (example: dry beans-dry beans)	0.00%	0
2	2- year (example: dry beans- corn)	15.91%	7
3	3- year (example: dry beans- wheat- corn)	45.45%	20
4	4- year (Example: dry beans- wheat- sugarbeets- corn)	31.82%	14
5	Other	6.82%	3
	Total	100%	44

Q41 - How confident do you feel confident in the decisions you make in the management of dry beans in the following categories:



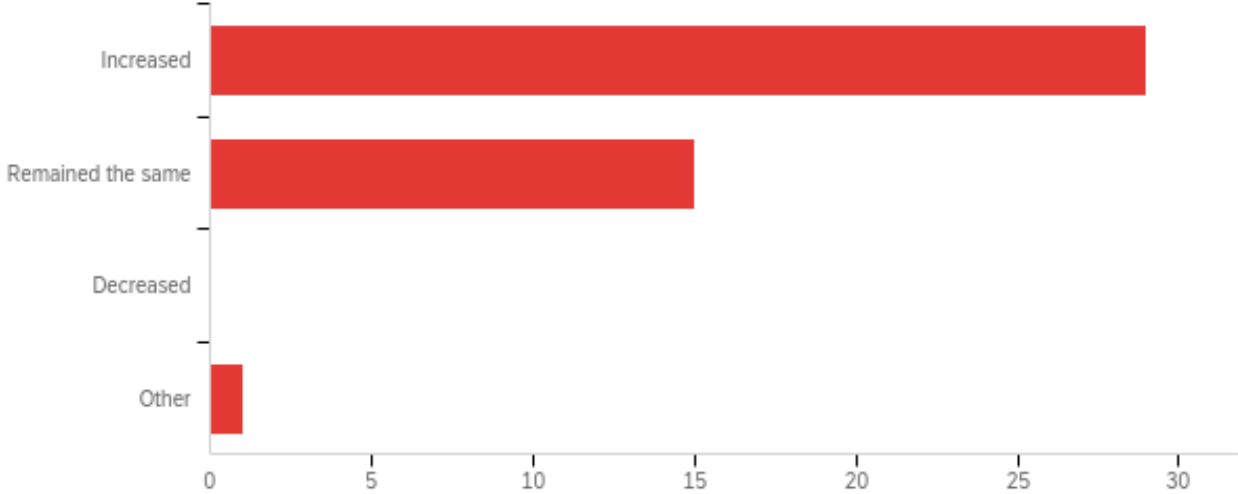
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
3	Root Rot	1.00	5.00	3.52	1.52	2.30	40
8	Anthracnose	1.00	5.00	3.83	1.26	1.59	40
4	Blight (common or halo)	1.00	5.00	4.00	1.24	1.54	39
7	White Mold	1.00	5.00	4.00	1.20	1.43	42
6	Weeds	1.00	5.00	4.37	1.03	1.07	43
9	Desiccation	1.00	5.00	4.51	0.91	0.84	41
5	Insects	1.00	5.00	4.59	0.73	0.54	41
2	Nutrient Management	1.00	5.00	4.62	0.72	0.52	42
1	Variety Selection	4.00	5.00	4.76	0.43	0.18	42

Q42 - In the past 5 years I have applied _____ nitrogen to dry beans.



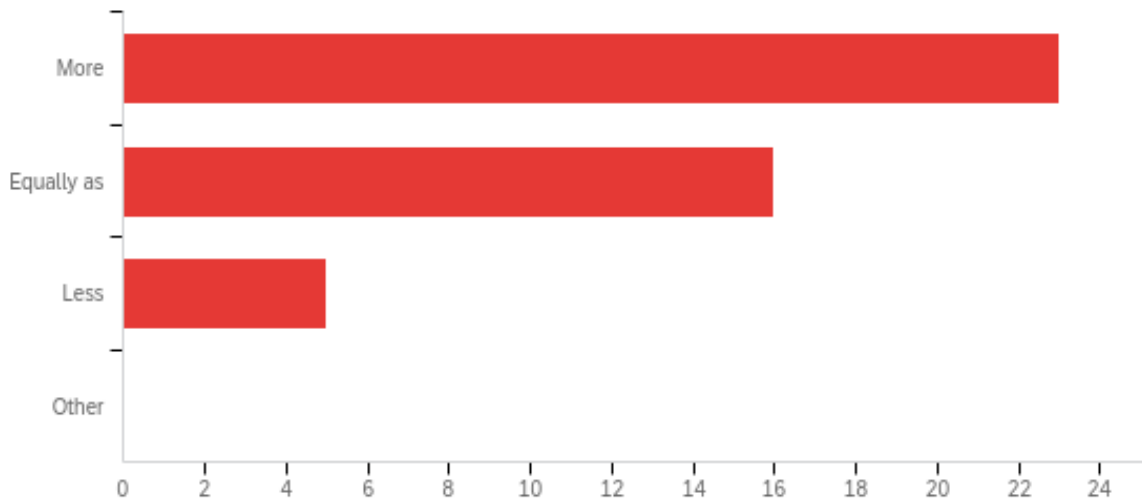
#	Answer	%	Count
1	More	15.56%	7
2	The same	73.33%	33
3	Less	11.11%	5
4	Other	0.00%	0
	Total	100%	45

Q43 - On average my dry bean yields have _____ over the past 5 years.



#	Answer	%	Count
1	Increased	64.44%	29
2	Remained the same	33.33%	15
3	Decreased	0.00%	0
4	Other	2.22%	1
	Total	100%	45

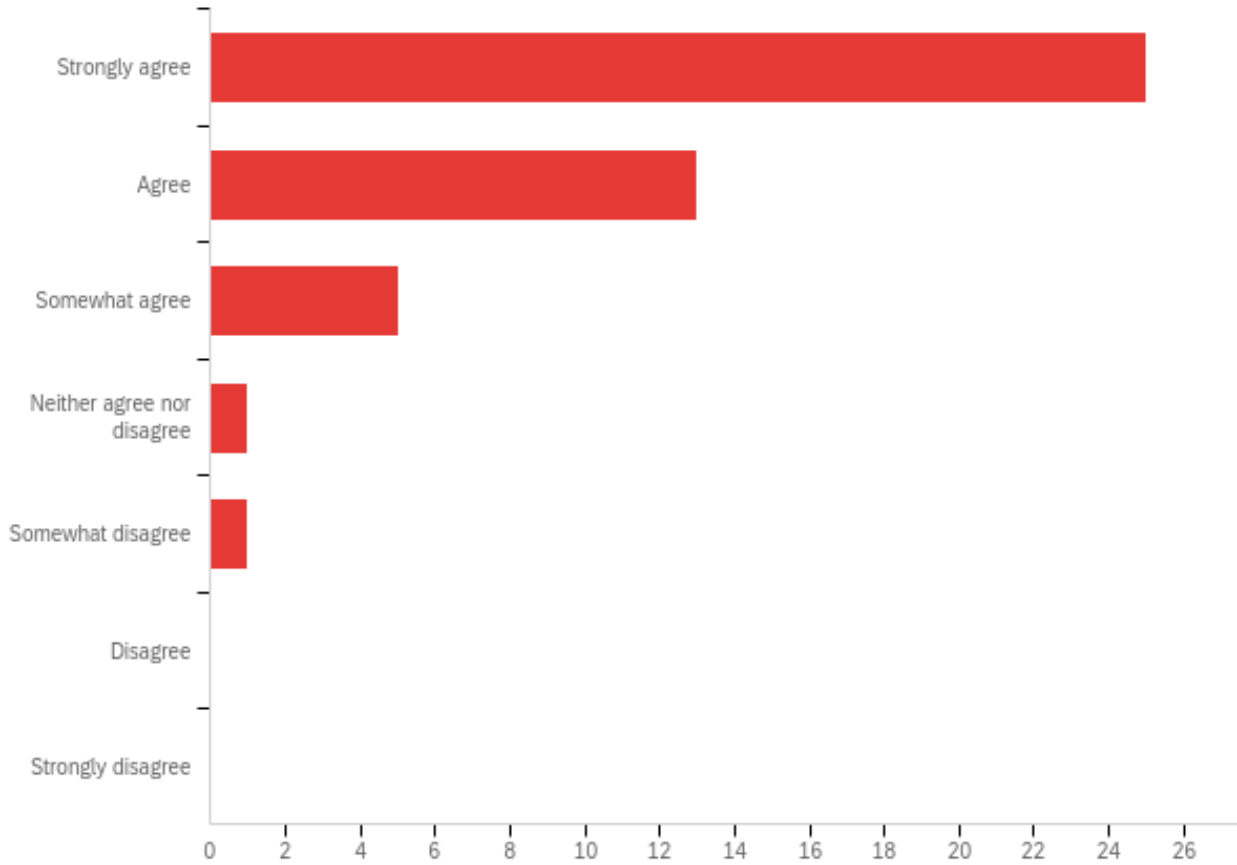
Q44 - Dry bean production on my farm is _____ profitable than it was 5 years ago.



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Dry bean production on my farm is _____ profitable than it was 5 years ago. - Selected Choice	1.00	3.00	1.59	0.68	0.47	44

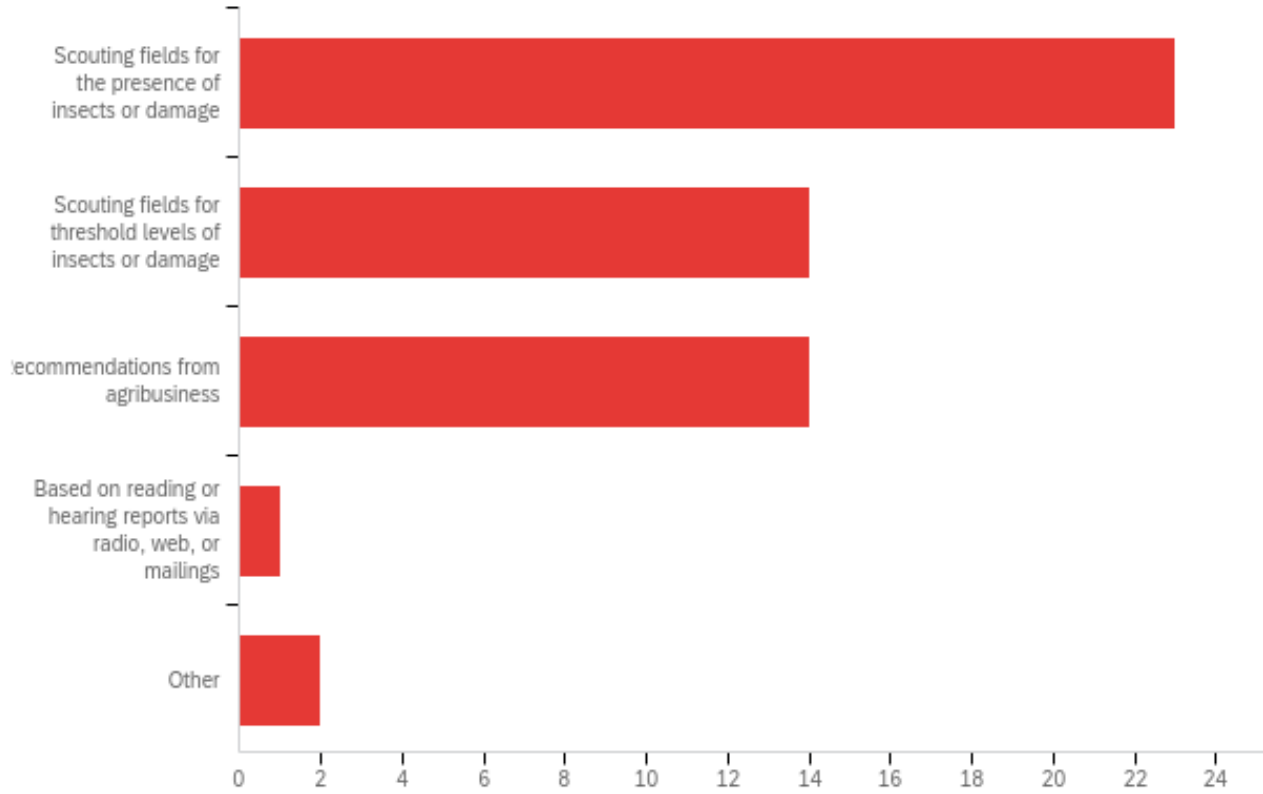
#	Answer	%	Count
1	More	52.27%	23
2	Equally as	36.36%	16
3	Less	11.36%	5
4	Other	0.00%	0
	Total	100%	44

Q45 - Research done by the Michigan Bean Commission and MSU has improved dry bean production on my farm. (Profitability and Sustainability)



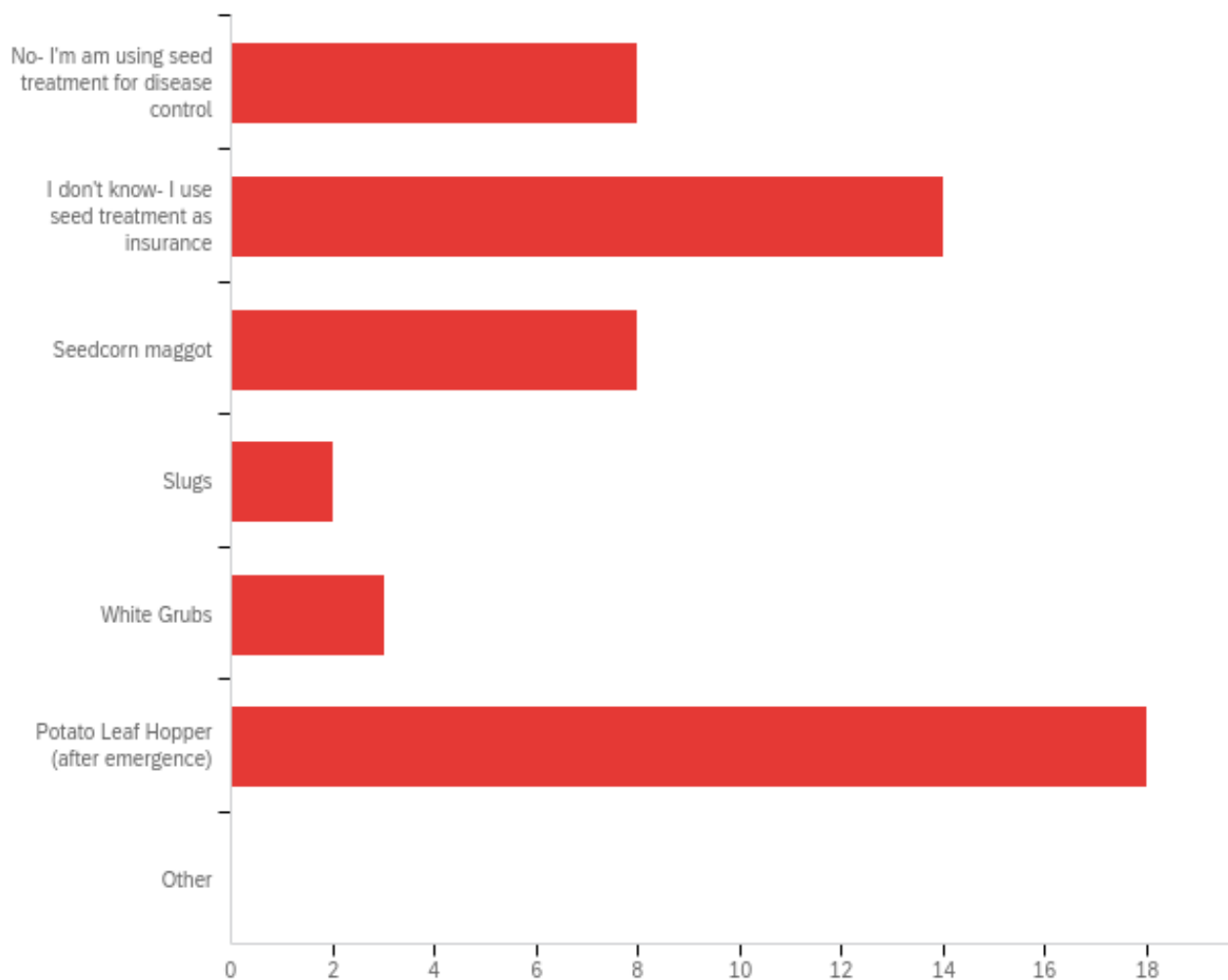
#	Answer	%	Count
4	Strongly agree	55.56%	25
5	Agree	28.89%	13
6	Somewhat agree	11.11%	5
7	Neither agree nor disagree	2.22%	1
8	Somewhat disagree	2.22%	1
9	Disagree	0.00%	0
10	Strongly disagree	0.00%	0
	Total	100%	45

Q46 - How do you make the decision to spray foliar insecticide? (Please check all that apply)



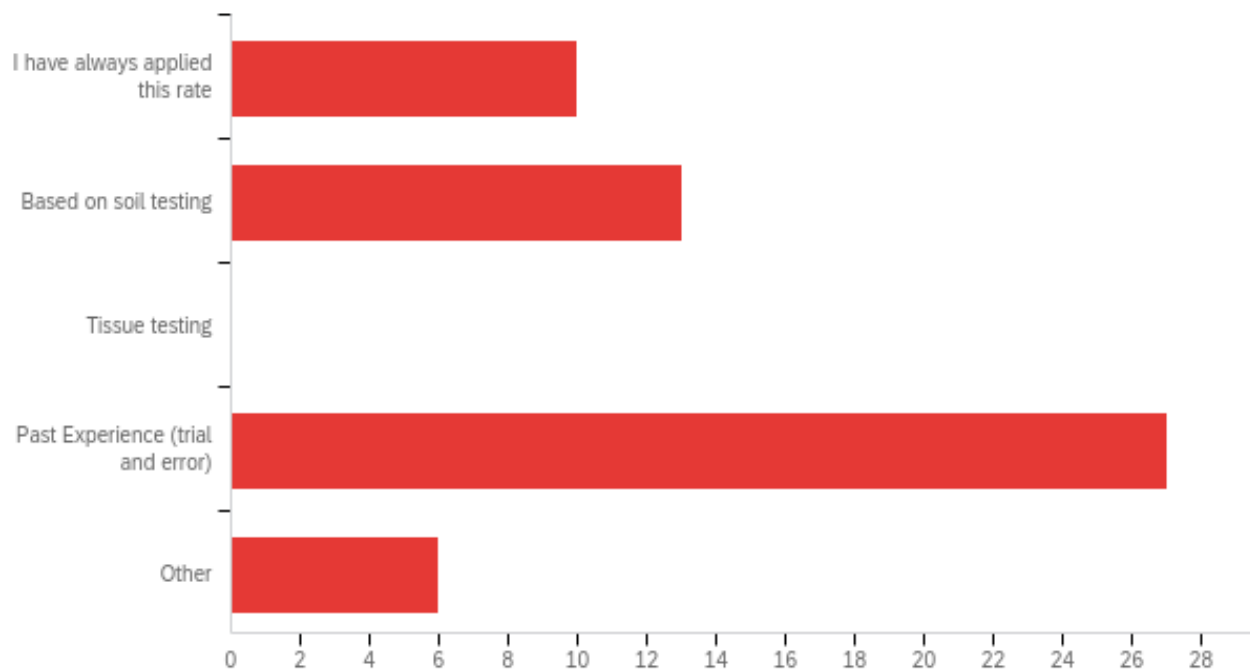
#	Answer	%	Count
1	Scouting fields for the presence of insects or damage	42.59%	23
2	Scouting fields for threshold levels of insects or damage	25.93%	14
3	Recommendations from agribusiness	25.93%	14
4	Based on reading or hearing reports via radio, web, or mailings	1.85%	1
5	Other	3.70%	2
	Total	100%	54

Q47 - If you are using a seed treatment w/ an insecticide (Lorsban or Cruiser), are you targeting a specific pest?



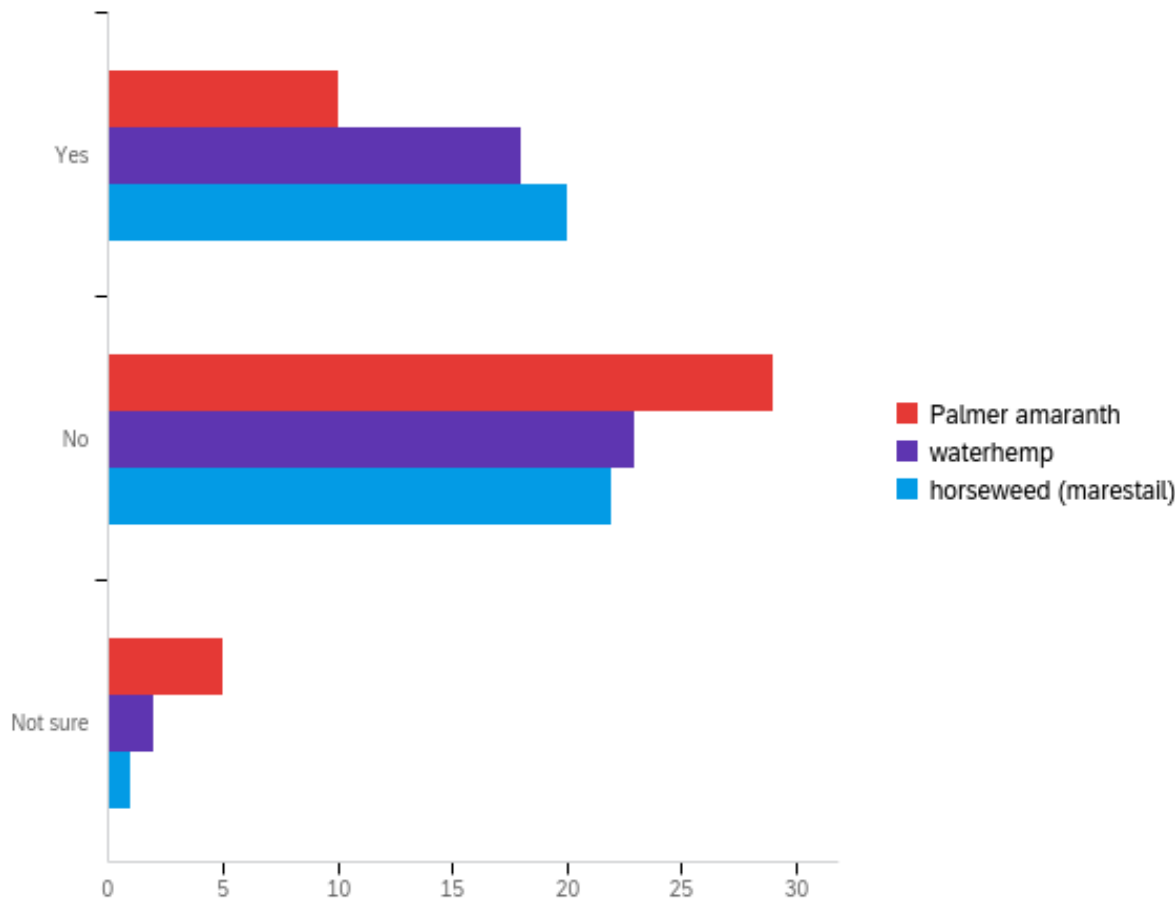
#	Answer	%	Count
1	No- I'm am using seed treatment for disease control	15.09%	8
2	I don't know- I use seed treatment as insurance	26.42%	14
3	Seedcorn maggot	15.09%	8
4	Slugs	3.77%	2
5	White Grubs	5.66%	3
6	Potato Leaf Hopper (after emergence)	33.96%	18
7	Other	0.00%	0
	Total	100%	53

Q48 - How do you decide how much Nitrogen to apply to dry beans? (Please check all that apply)



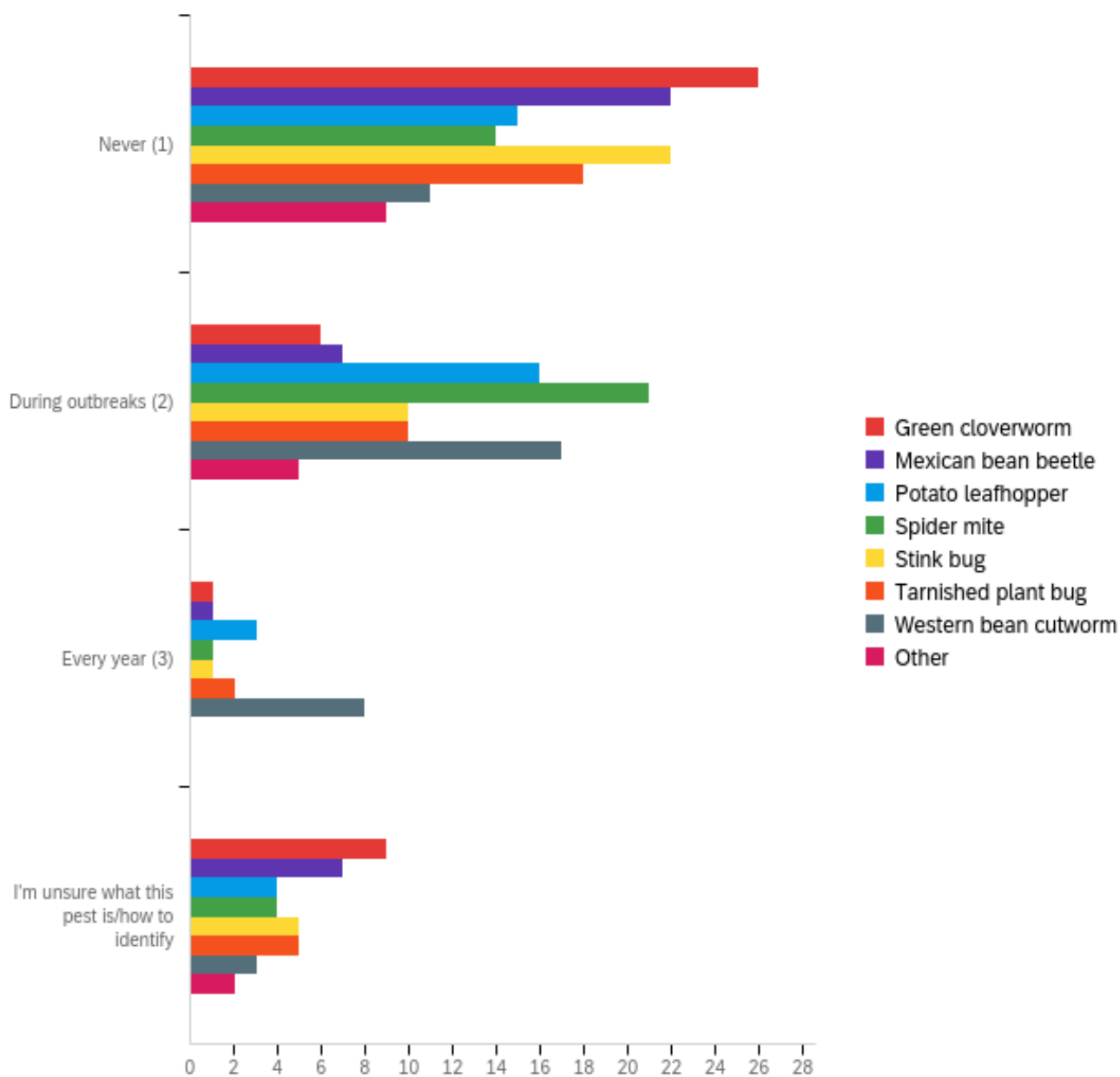
#	Answer	%	Count
1	I have always applied this rate	17.86%	10
2	Based on soil testing	23.21%	13
3	Tissue testing	0.00%	0
5	Past Experience (trial and error)	48.21%	27
6	Other	10.71%	6
	Total	100%	56

Q49 - When producing dry beans Is the control of waterhemp, Palmer amaranth, or horseweed (marestail) a challenge on your farm?



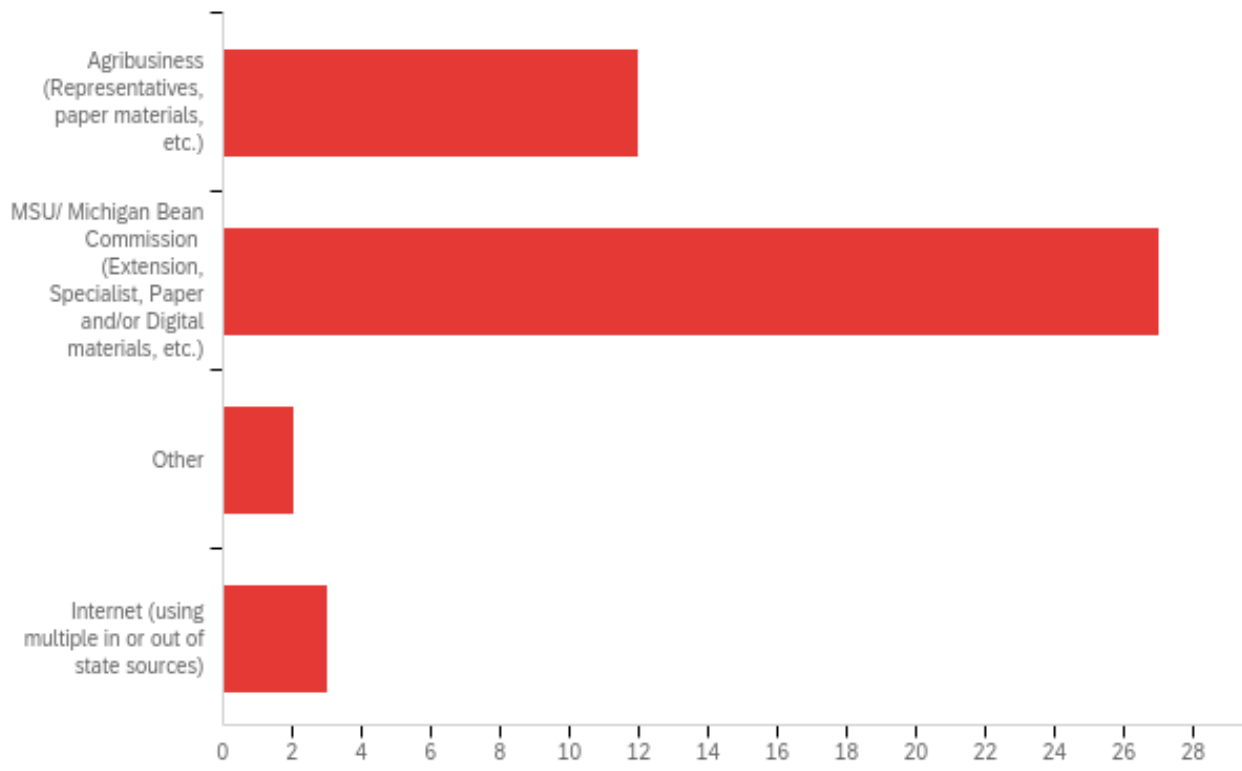
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Palmer amaranth	1.00	3.00	1.89	0.57	0.33	44
2	waterhemp	1.00	3.00	1.63	0.57	0.33	43
3	horseweed (marestail)	1.00	3.00	1.56	0.54	0.29	43

Q50 - In the past 5 years how often have you sprayed or experienced yield loss/pick from the following pests: (if you are unsure of a pest/how to identify please select the final bubble)




#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Green cloverworm	1.00	6.00	2.45	2.05	4.20	42
2	Mexican bean beetle	1.00	6.00	2.43	1.97	3.87	37
3	Potato leafhopper	1.00	6.00	2.68	1.66	2.74	38
4	Spider mite	1.00	6.00	2.65	1.51	2.28	40
5	Stink bug	1.00	6.00	2.29	1.76	3.10	38
6	Tarnished plant bug	1.00	6.00	2.51	1.83	3.34	35
7	Western bean cutworm	1.00	6.00	3.08	1.62	2.64	39
8	Other	1.00	6.00	2.25	1.68	2.81	16

Q51 - Where do you get the majority of information on dry bean pest when you need it? (Weeds, Insects, Diseases, etc.)



#	Answer	%	Count
1	Agribusiness (Representatives, paper materials, etc.)	27.27%	12
2	MSU/ Michigan Bean Commission (Extension, Specialist, Paper and/or Digital materials, etc.)	61.36%	27
3	Other	4.55%	2
4	Internet (using multiple in or out of state sources)	6.82%	3
	Total	100%	44



***PRAB Production Practices Survey:
Thank you to all of those who
participated in this year's survey***

***Scott Bales, MSU Dry Bean Specialist
&
Joe Cramer, Executive Director
Michigan Bean Commission***

Michigan Dry Edible Bean Production Research Advisory Board

2022