

PRODUCTION RESEARCH ADVISORY BOARD

Annual Production Practices Survey Results

2024



MSU Extension



**MICHIGAN BEAN
COMMISSION**

Production Research Advisory Board

2024

Original Questionnaire (taken in digital format):

Q0- Demographics

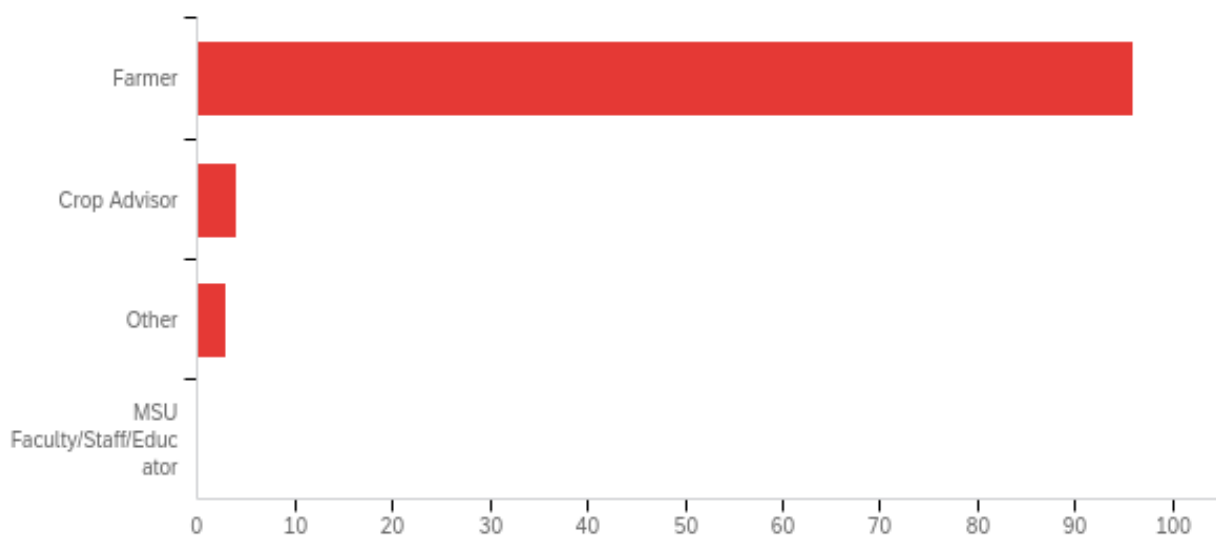
- Q1.** I would describe myself as a _____ farmer or crop consultant.
- Q2.** Do you include dry beans in your crop rotation each year?
- Q3.** My Farm or office is primarily located in _____ county.
- Q4.** My dry beans are _____.
- Q5.** On a five-year average our farm raises _____ acres of dry beans each year.
- Q6.** In 2023 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 foliar feed your dry bean crop?
- Q18.** Is manure part of your fertility program?
- Q19.** What is your most preferred seed treatment?
- Q20.** What products are included in your preplant weed control?
- Q21.** What products are included in your POST weed control program?
- Q22.** Given your current weed control program, please rank the following weed species are most likely to escape control?
- Q23.** Do you have any of the following resistant weeds in your dry bean fields?
- Q24.** How do you select what dry bean variety or varieties you choose to plant?
- Q25.** What is your most preferred white mold treatment?
- Q26.** On a 5-year average, how many white mold fungicide applications do you plan?
- Q27.** Do you use a foliar insecticide?
- Q28.** What is your most preferred/used insecticide?
- Q29.** What is your most preferred harvest aid?
- Q30.** What is the preferred method of dry bean harvest on your farm?

- Q31. What percentage of your farm acres would have a cover crop?
- Q32. What is your most preferred cover crop?
- Q33. What dry bean disease causes the highest yield loss on your farm?
- Q34. **Please rank what areas of dry bean production need further researcher to help increase dry bean yields on your farm?**
- Q35. How do you determine when or if you will apply a white mold fungicide?
- Q36. Please indicated what percent of your Black Bean acres were planted to each variety in 2023
- Q37. Please indicated what percent of your Navy Bean acres were planted to each variety in 2023
- Q38. Please indicated what percent of your Small Red acres were planted to each variety in 2023
- Q39. How many year rotation are your dry beans in?
- Q40. How confident do you feel confident in the decisions you make in the management of dry beans in the following categories:
- Q41. From work done by the Michigan Bean Commission/MSU have you gained knowledge about science based practices to manage pest/diseases on your farm?
- Q42. On average my dry bean yields have _____ over the past 5 years.
- Q43. When producing dry beans Is the control of waterhemp, Palmer amaranth, or horseweed (marestail) a challenge on your farm?
- Q44. Where do you get the majority of information on dry bean pest when you need it?

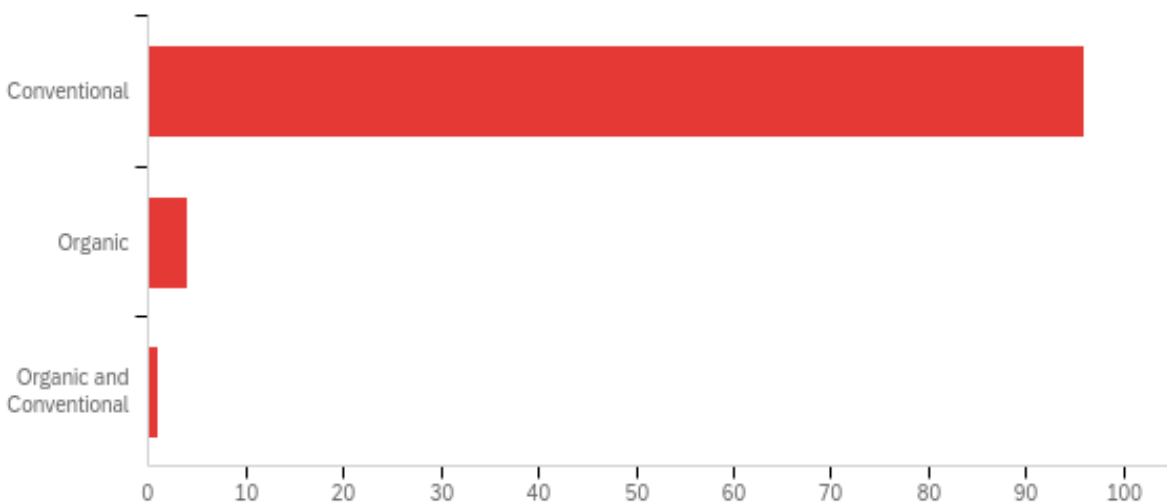


2023 Dry Bean Production Practices Survey

Demographics

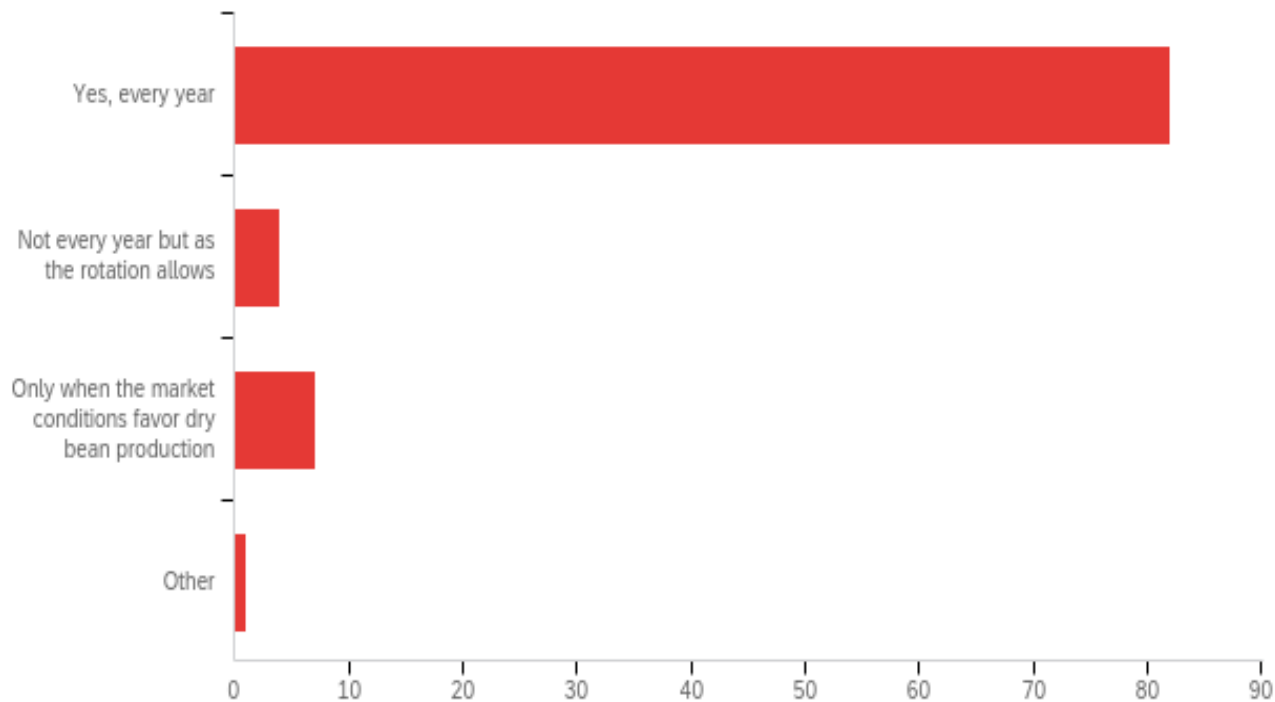


Q1 - I would describe the myself as a _____ farmer or crop consultant.



#	Answer	%	Count
1	Conventional	95.05%	96
2	Organic	3.96%	4
3	Organic and Conventional	0.99%	1
	Total	100%	101

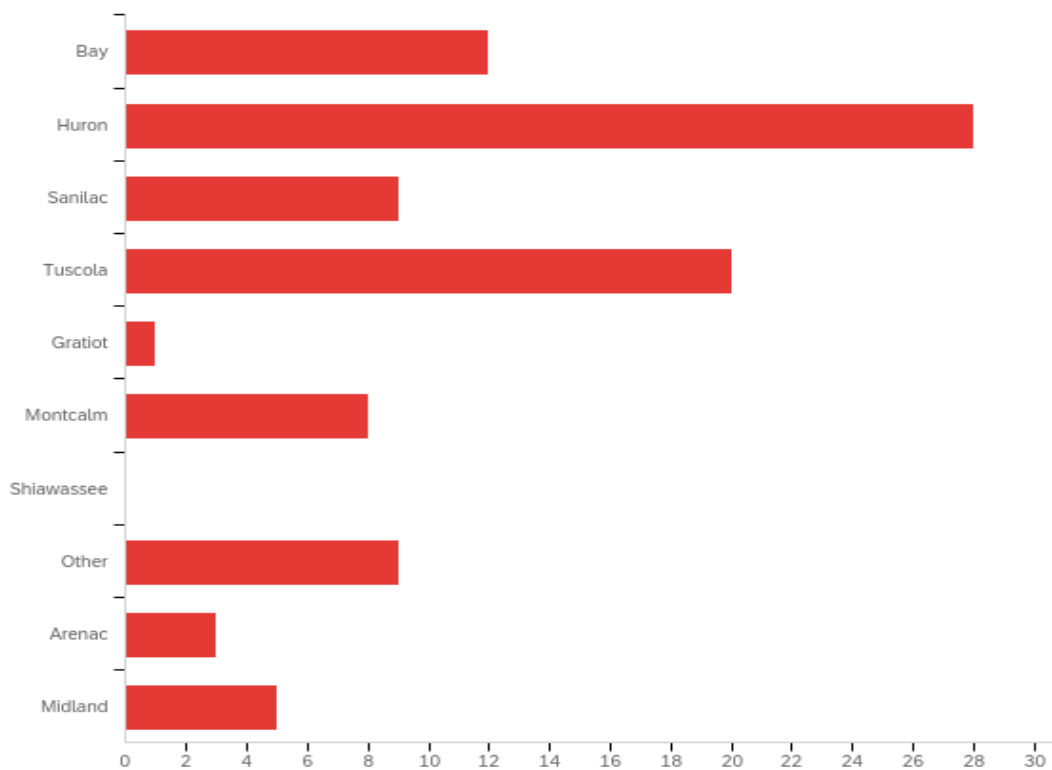
Q2 - Do you include dry beans in your crop rotation each year?



#	Answer	%	Count
1	Yes, every year	87.23%	82
2	Not every year but as the rotation allows	4.26%	4
3	Only when the market conditions favor dry bean production	7.45%	7
4	Other	1.06%	1
	Total	100%	94

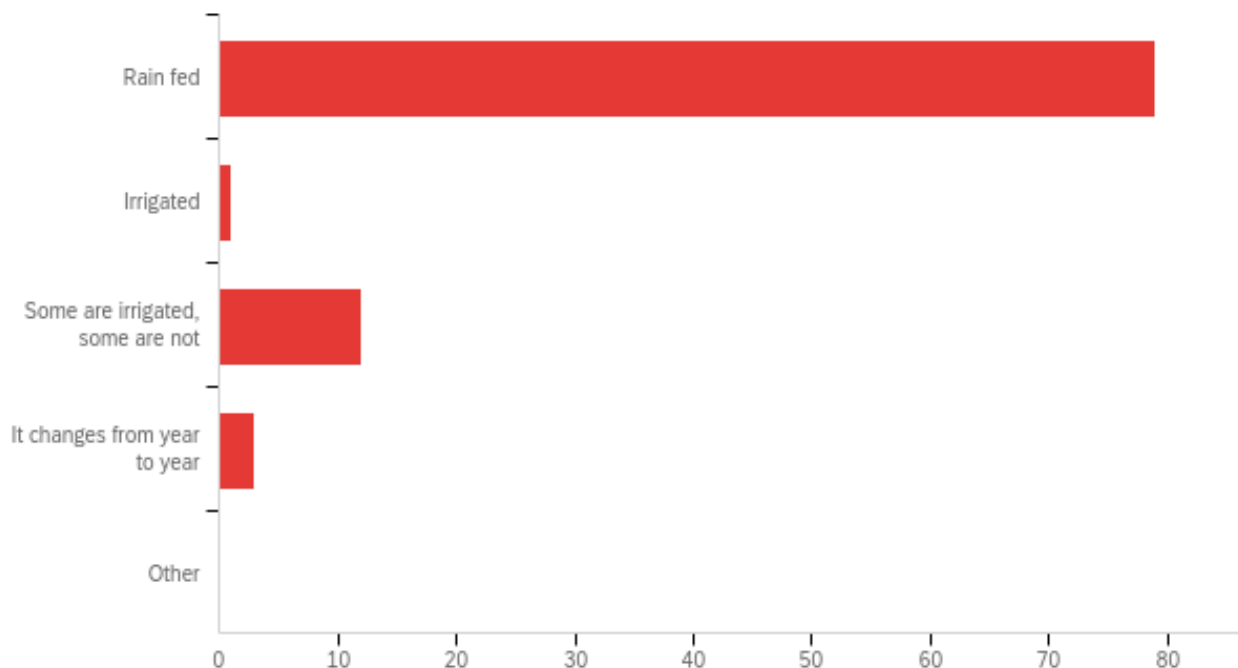


Q3 - My Farm or office is primarily located in _____ county.



#	Answer	%	Count
1	Bay	12.63%	12
2	Huron	29.47%	28
3	Sanilac	9.47%	9
4	Tuscola	21.05%	20
5	Gratiot	1.05%	1
6	Montcalm	8.42%	8
7	Shiawassee	0.00%	0
8	Other	9.47%	9
12	Arenac	3.16%	3
13	Midland	5.26%	5
	Total	100%	95

Q4 - My dry beans are _____.

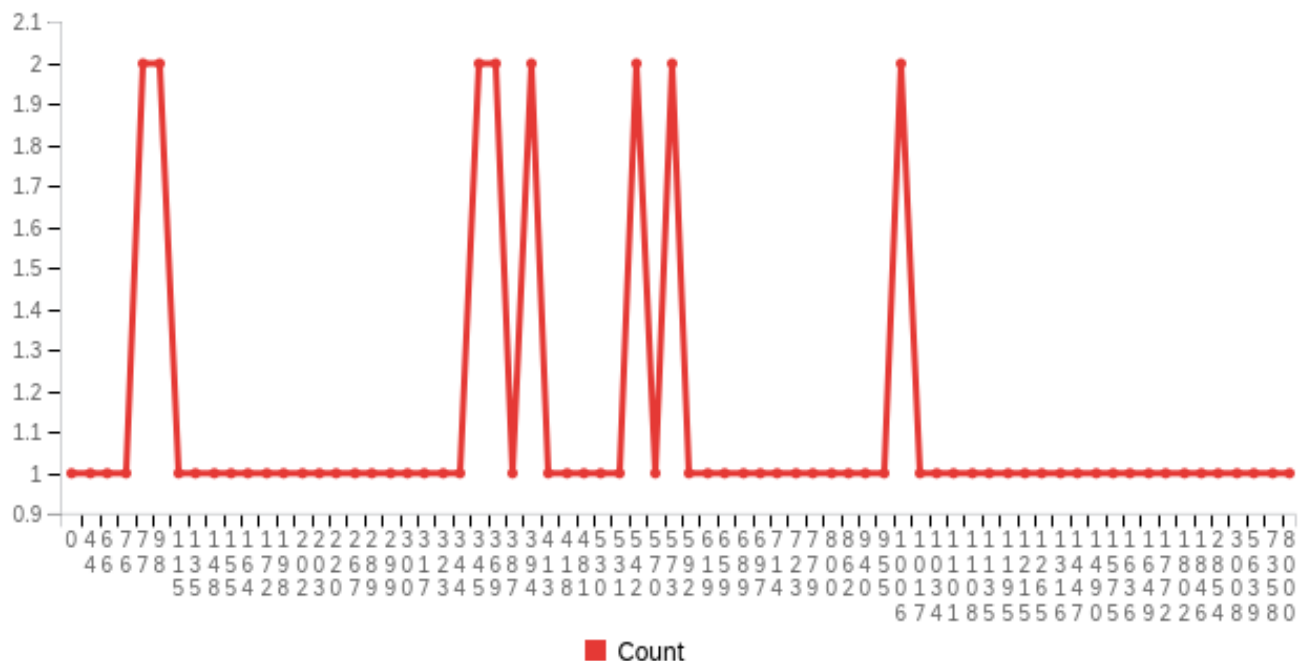


#	Answer	%	Count
1	Rain fed	83.16%	79
2	Irrigated	1.05%	1
3	Some are irrigated, some are not	12.63%	12
4	It changes from year to year	3.16%	3
6	Other	0.00%	0
	Total	100%	95



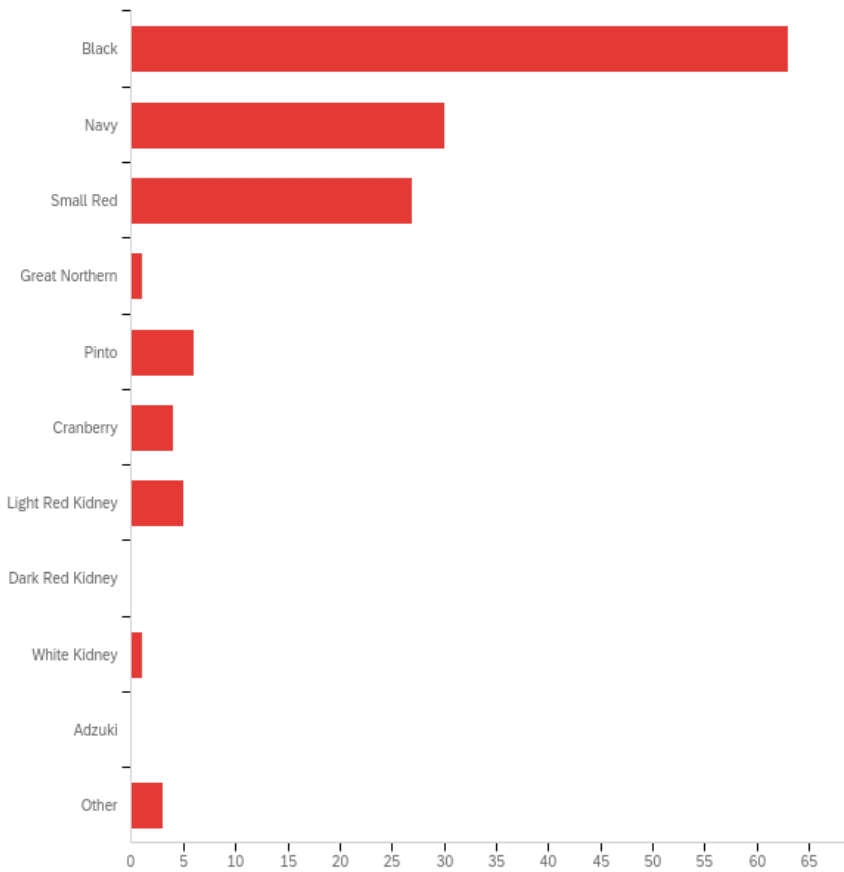
Q5 - On a five-year average our farm raises _____ acres of dry beans each year. (crop consultants please indicate the number of acres you consult on annually)

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	5	0.00	8000.00	944.44	1364.69	1862381.84	78



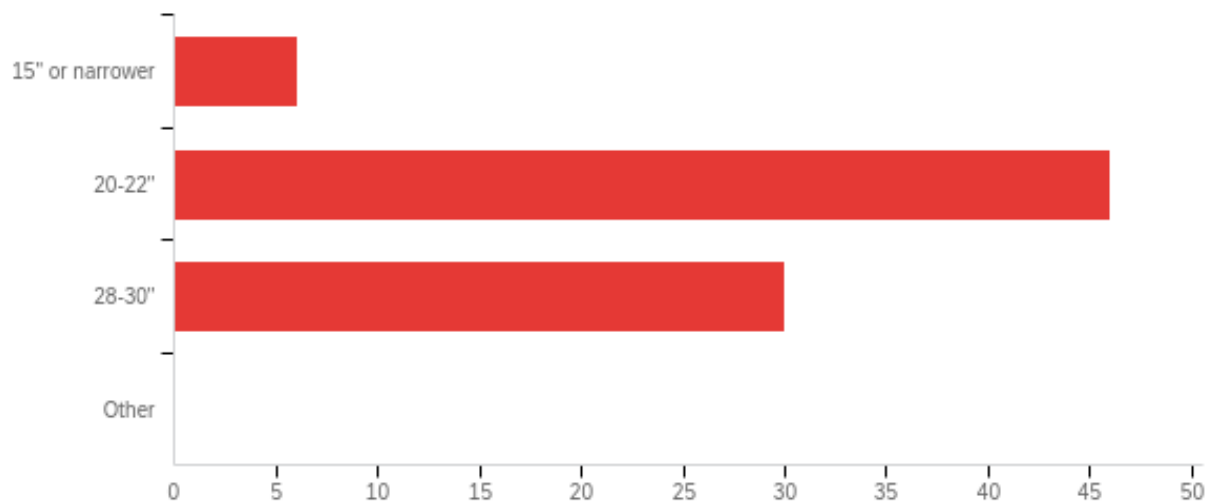


Q6 - In 2023 I raised _____ beans. (Please select all that apply)



#	Answer	%	Count
1	Black	45.00%	63
2	Navy	21.43%	30
3	Small Red	19.29%	27
4	Great Northern	0.71%	1
5	Pinto	4.29%	6
6	Cranberry	2.86%	4
7	Light Red Kidney	3.57%	5
8	Dark Red Kidney	0.00%	0
9	White Kidney	0.71%	1
10	Adzuki	0.00%	0
11	Other	2.14%	3
	Total	100%	140

Q7 - What row width are you planting?



#	Answer	%	Count
1	15" or narrower	7.32%	6
2	20-22"	56.10%	46
3	28-30"	36.59%	30
5	Other	0.00%	0
	Total	100%	82

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

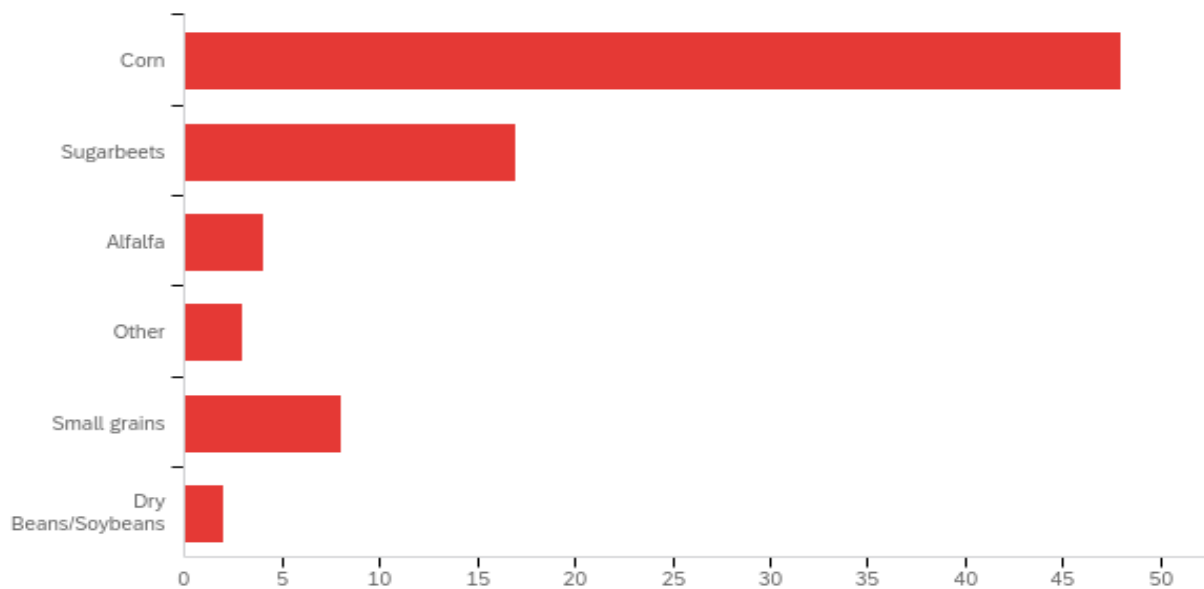
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Black and Navy	80.00	135.00	110.34	10.44	109.09	74
2	S. Red, Pinto, and G. Northern	60.00	120.00	93.93	13.13	172.48	29
3	Kidney and Cranberry	60.00	86.00	74.50	8.92	79.65	10



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

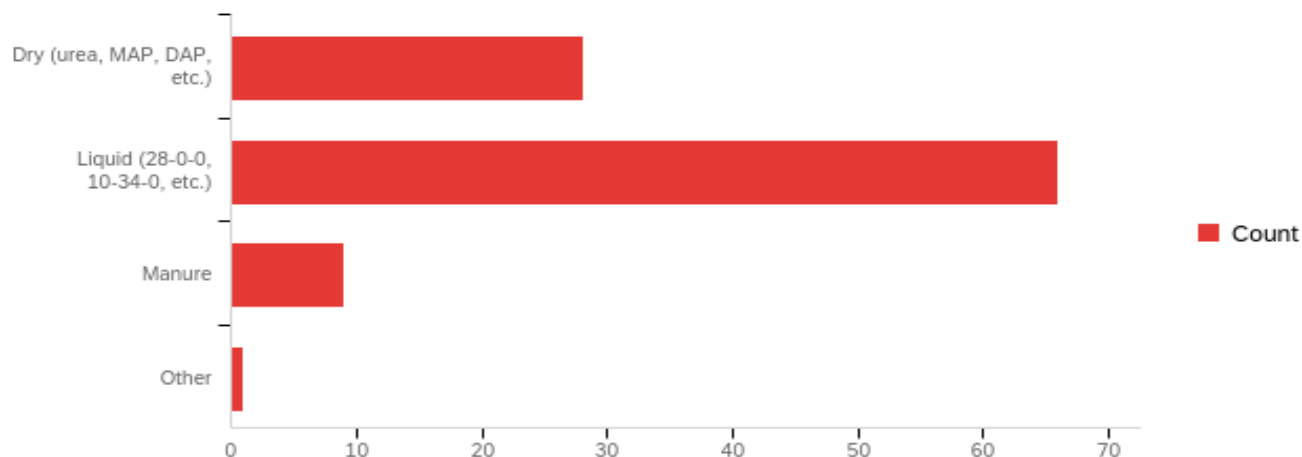
#	Answer	%	Count
1	3rd week of May	2.44%	2
2	4th week of May	25.61%	21
3	1st week of June	59.76%	49
4	2nd week of June	8.54%	7
5	3rd week of June	2.44%	2
6	4th week of June	1.22%	1
	Total	100%	82

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



#	Answer	%	Count
1	Corn	58.54%	48
2	Sugarbeets	20.73%	17
3	Alfalfa	4.88%	4
4	Other	3.66%	3
5	Small grains	9.76%	8
6	Dry Beans/Soybeans	2.44%	2
	Total	100%	82

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



#	Answer	%	Count
1	Dry (urea, MAP, DAP, etc.)	26.92%	28
2	Liquid (28-0-0, 10-34-0, etc.)	63.46%	66
4	Manure	8.65%	9
5	Other	0.96%	1
	Total	100%	104

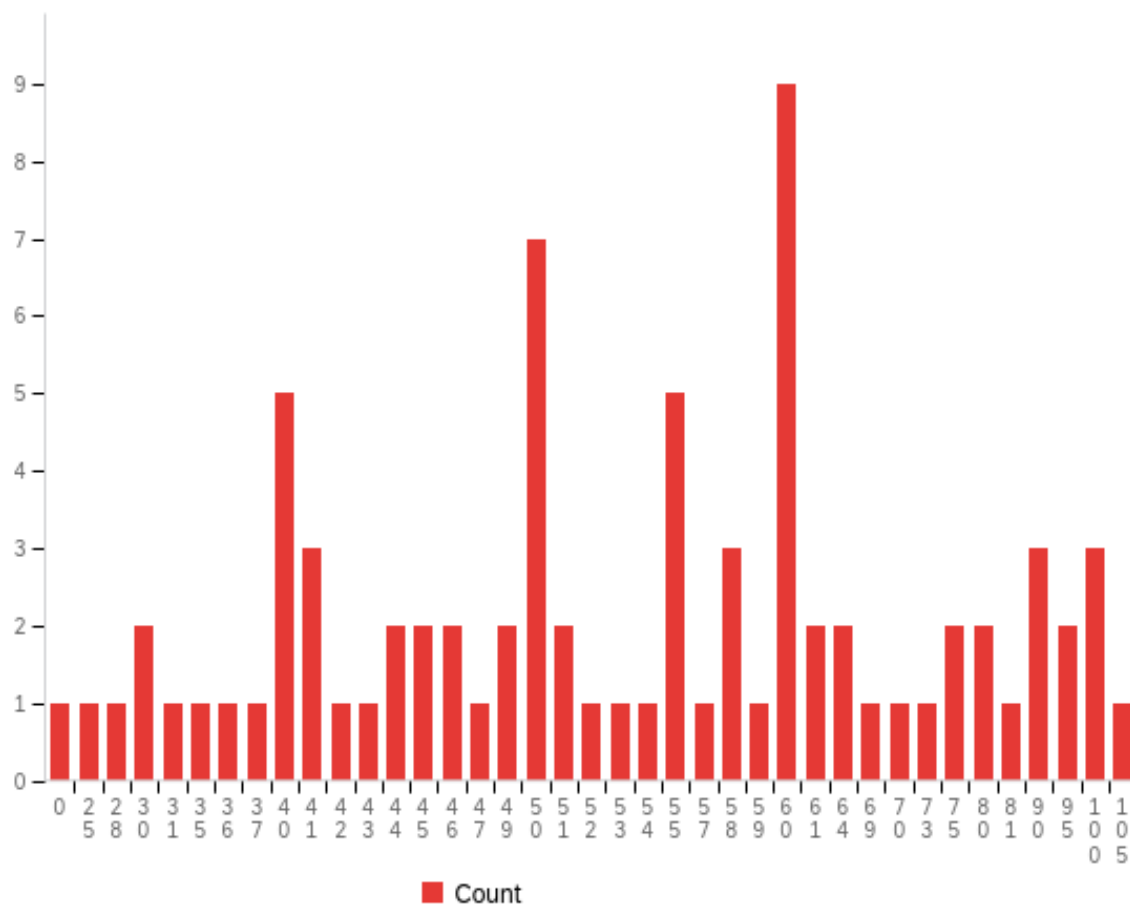
Q12 - How and when do you apply nitrogen? (Please select all that apply)

#	Answer	%	Count
1	2x2 (at planting)	48.04%	49
2	Top-dressed (after planting)	3.92%	4
3	Broadcast spread or sprayed (Before planting)	48.04%	49
5	Other	0.00%	0
	Total	100%	102



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

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	# Actual Nitrogen Per Acre	0.00	105.00	56.36	19.31	372.88	80



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	70.00	30.55	16.35	267.39	58

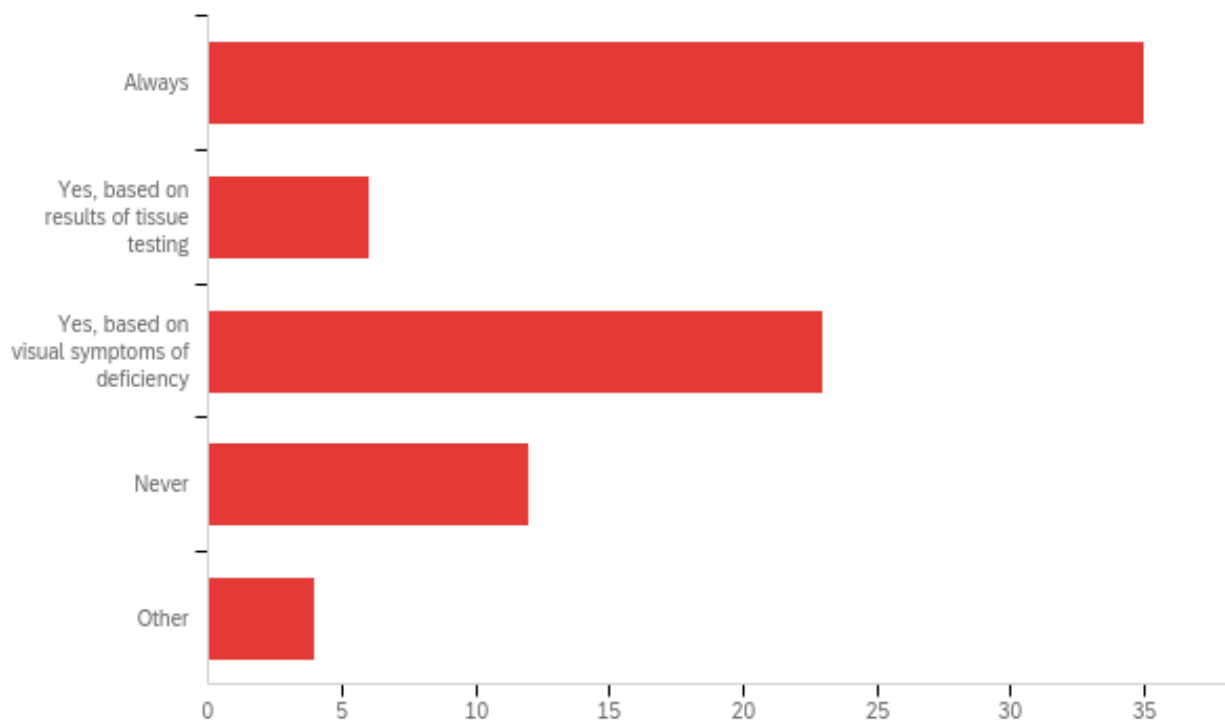
Q15 - How many total pounds per acre of actual Potassium do you apply? (Please choose Not Applicable if Potassium is only applied based on a soil test prior to dry beans)

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	# Actual Potassium Per Acre	0.00	100.00	50.34	27.46	754.22	47

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

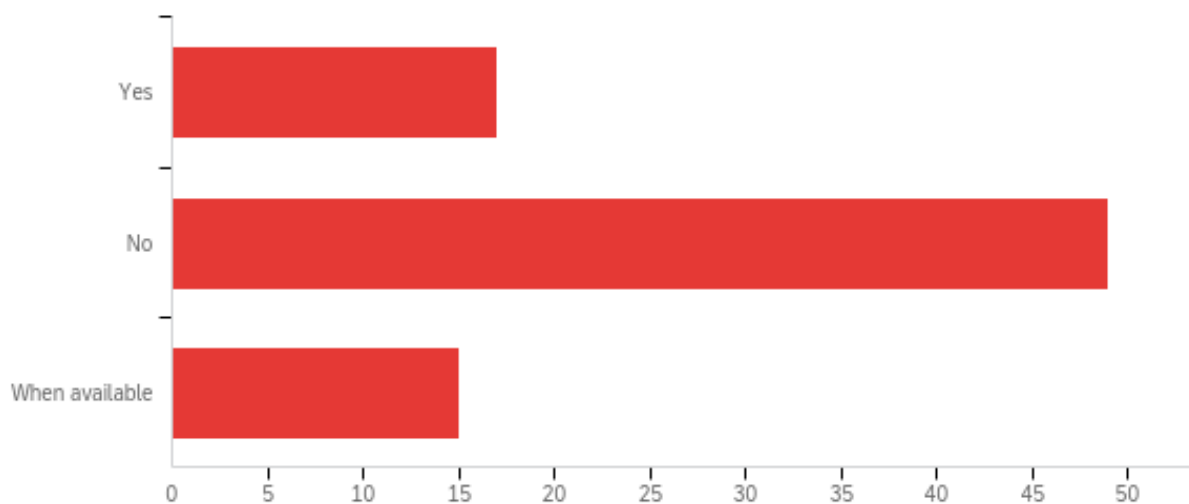
#	Answer	%	Count
1	Mn	30.22%	68
2	Zn	28.44%	64
3	Sulfur	25.78%	58
4	Boron	12.00%	27
5	Iron	1.78%	4
6	Other	0.44%	1
7	None	1.33%	3
	Total	100%	225

Q17 - Do you foliar feed your dry bean crop?



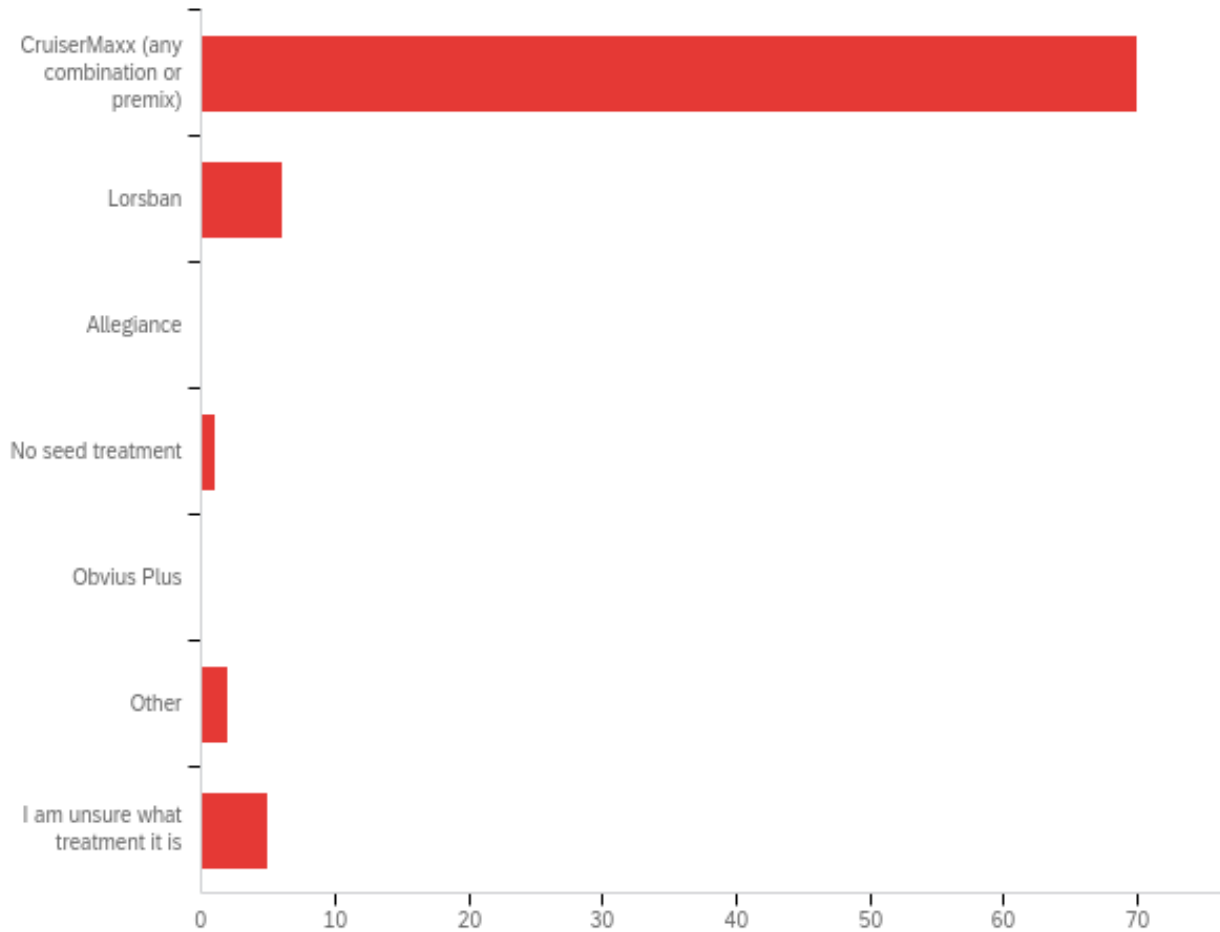
#	Answer	%	Count
1	Always	43.75%	35
2	Yes, based on results of tissue testing	7.50%	6
3	Yes, based on visual symptoms of deficiency	28.75%	23
6	Never	15.00%	12
8	Other	5.00%	4
	Total	100%	80

Q18 - Is manure part of your fertility program?



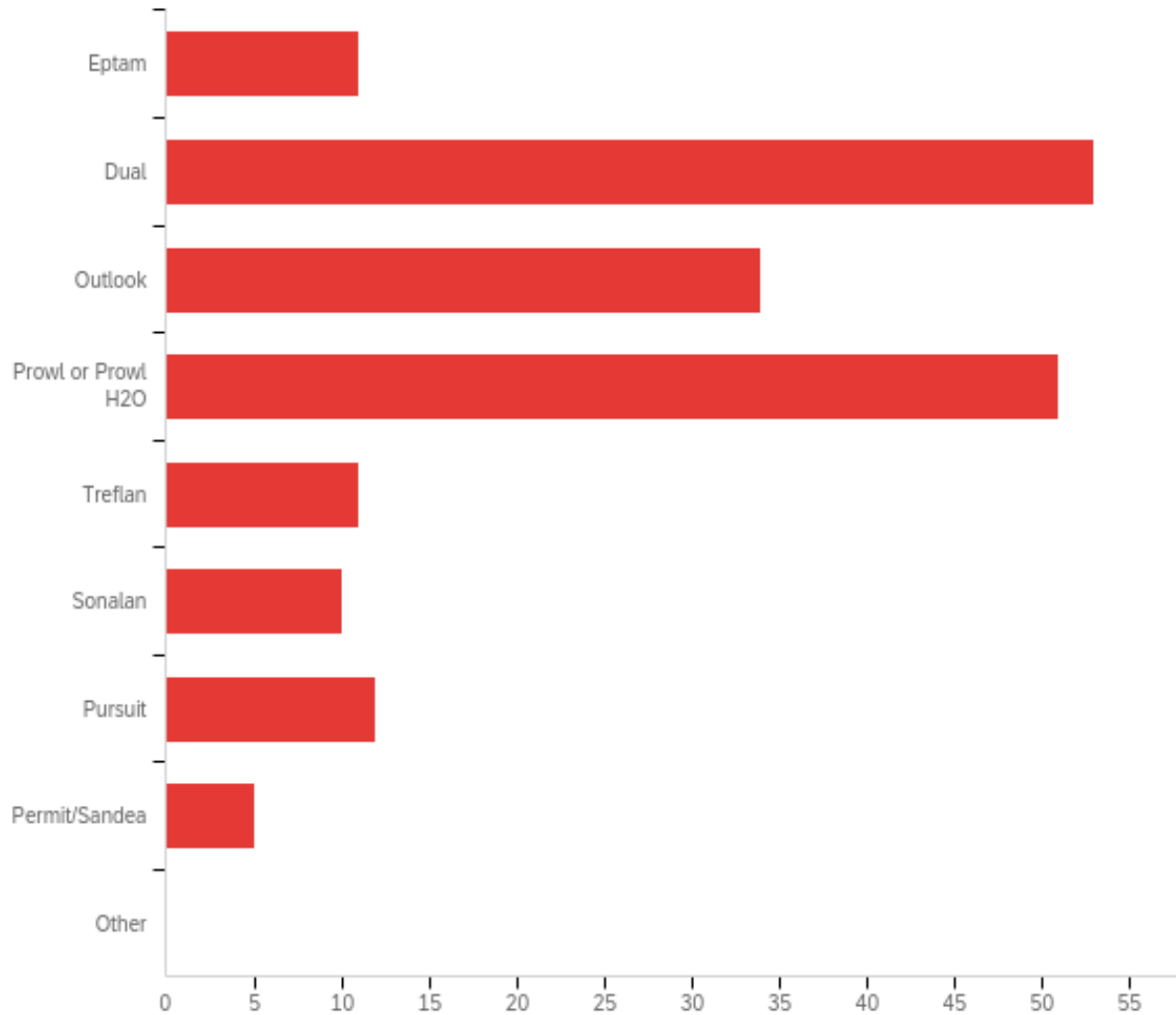
#	Answer	%	Count
1	Yes	20.99%	17
2	No	60.49%	49
3	When available	18.52%	15
	Total	100%	81

Q19- What is your most preferred seed treatment? (Please select all that apply)



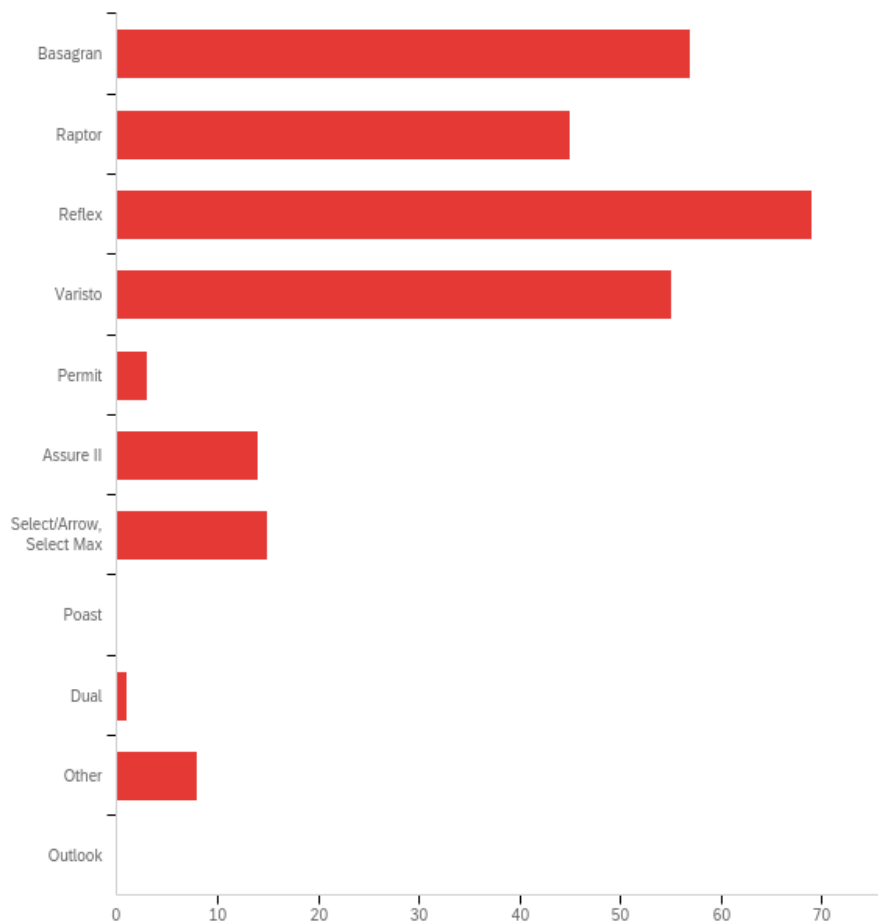
#	Answer	%	Count
1	CruiserMaxx (any combination or premix)	83.33%	70
3	Lorsban	7.14%	6
4	Allegiance	0.00%	0
5	No seed treatment	1.19%	1
6	Obvius Plus	0.00%	0
7	Other	2.38%	2
8	I am unsure what treatment it is	5.95%	5
	Total	100%	84

Q20 - What products are included in your preplant weed control? (Please select all that apply)



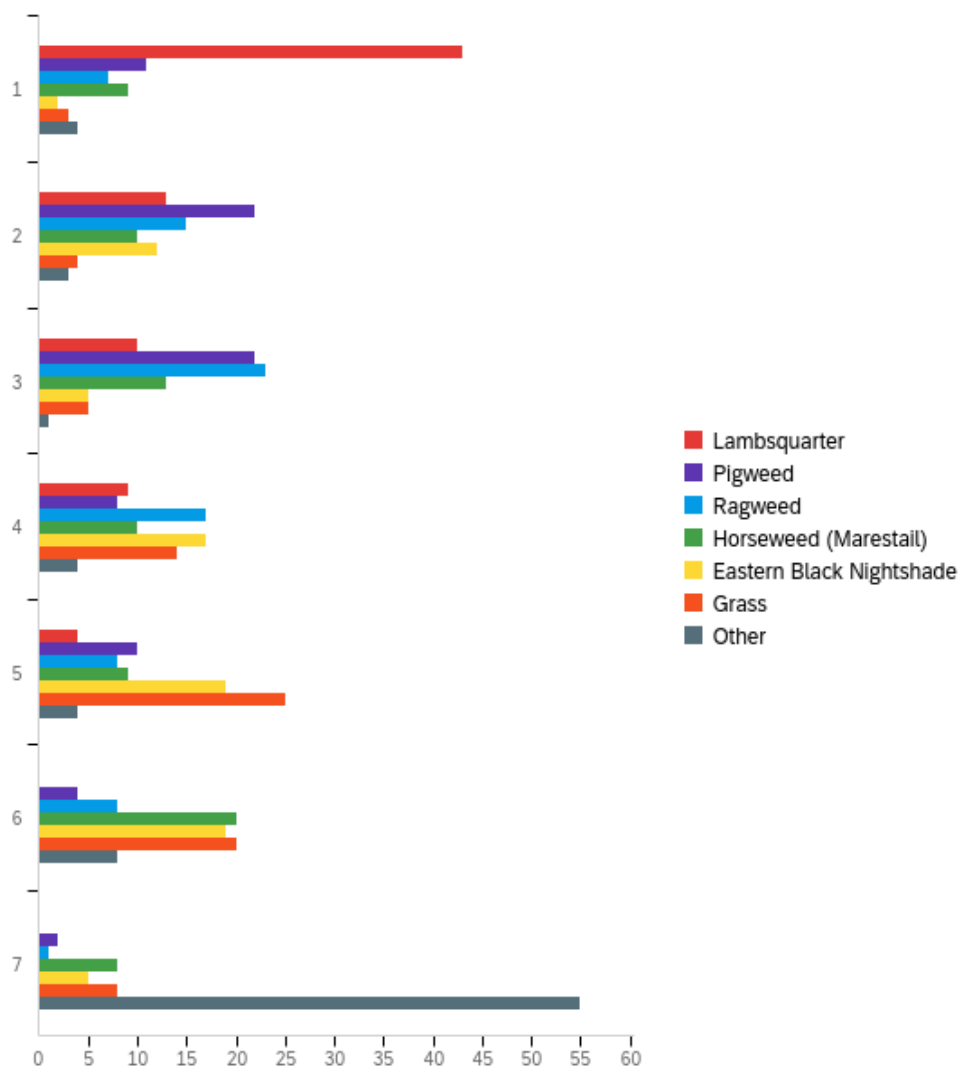
#	Answer	%	Count
1	Eptam	5.88%	11
2	Dual	28.34%	53
3	Outlook	18.18%	34
4	Prowl or Prowl H2O	27.27%	51
5	Treflan	5.88%	11
6	Sonalan	5.35%	10
7	Pursuit	6.42%	12
8	Permit/Sandea	2.67%	5
9	Other	0.00%	0
	Total	100%	187

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



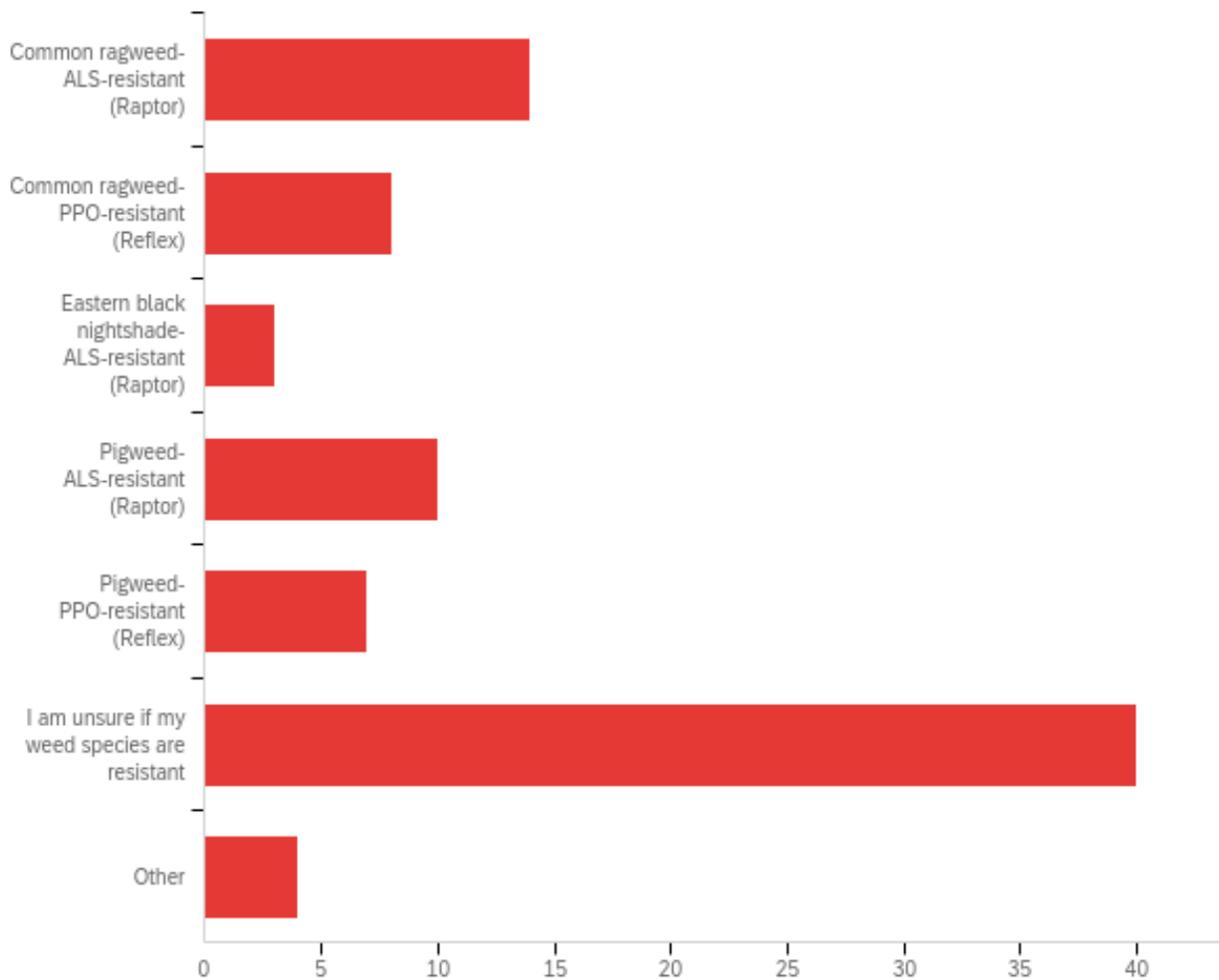
#	Answer	%	Count
1	Basagran	21.35%	57
2	Raptor	16.85%	45
3	Reflex	25.84%	69
4	Varisto	20.60%	55
5	Permit	1.12%	3
6	Assure II	5.24%	14
7	Select/Arrow, Select Max	5.62%	15
8	Poast	0.00%	0
9	Dual	0.37%	1
10	Other	3.00%	8
11	Outlook	0.00%	0
	Total	100%	267

Q22 - 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)



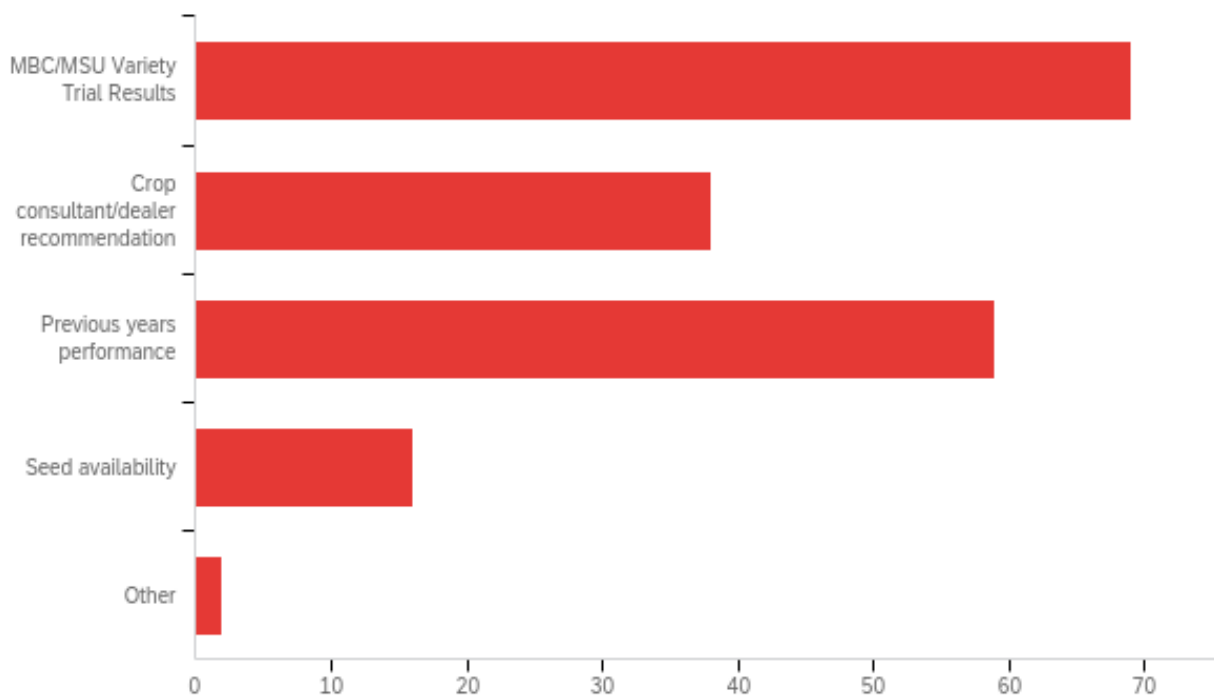
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Lambsquarter	1.00	5.00	1.96	1.26	1.58	79
2	Pigweed	1.00	7.00	3.05	1.52	2.30	79
3	Ragweed	1.00	7.00	3.41	1.45	2.11	79
4	Horseweed (Marestail)	1.00	7.00	4.16	1.93	3.71	79
5	Eastern Black Nightshade	1.00	7.00	4.47	1.57	2.45	79
6	Grass	1.00	7.00	4.85	1.46	2.13	79
7	Other	1.00	7.00	6.10	1.71	2.93	79

Q23 - Do you have any of the following resistant weeds in your dry bean fields? (Please select all that apply)



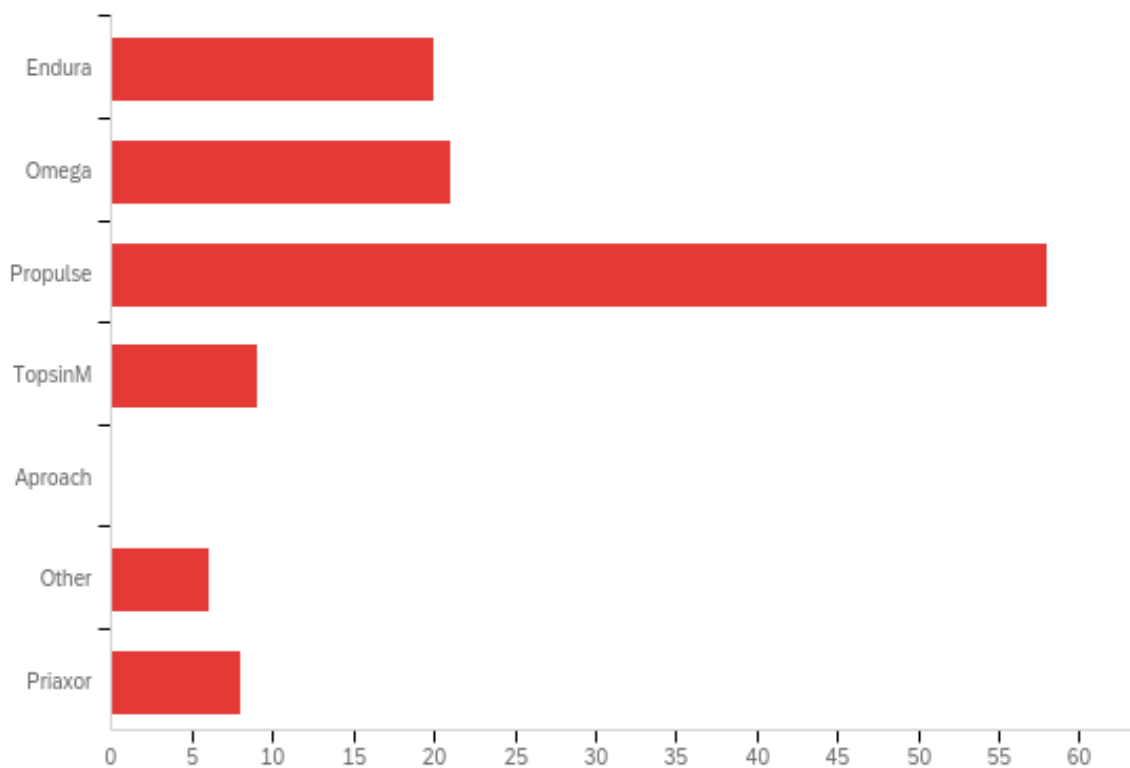
#	Answer	%	Count
1	Common ragweed- ALS-resistant (Raptor)	16.28%	14
2	Common ragweed- PPO-resistant (Reflex)	9.30%	8
3	Eastern black nightshade- ALS-resistant (Raptor)	3.49%	3
4	Pigweed- ALS-resistant (Raptor)	11.63%	10
5	Pigweed- PPO-resistant (Reflex)	8.14%	7
7	I am unsure if my weed species are resistant	46.51%	40
8	Other	4.65%	4
	Total	100%	86

Q24 - How do you select what dry bean variety or varieties you choose to plant? (Please select all that apply)



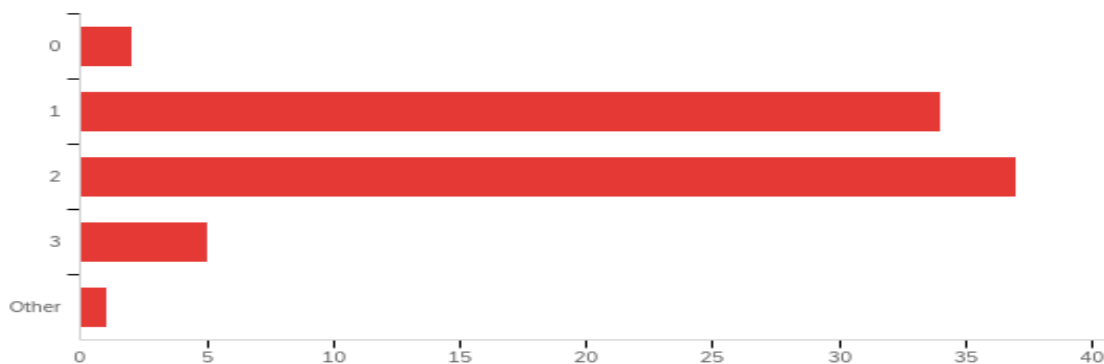
#	Answer	%	Count
1	MBC/MSU Variety Trial Results	37.50%	69
2	Crop consultant/dealer recommendation	20.65%	38
3	Previous years performance	32.07%	59
4	Seed availability	8.70%	16
5	Other	1.09%	2
	Total	100%	184

Q25- What is your most preferred white mold treatment? (Please select all that apply, example: multiple applications or mixtures)



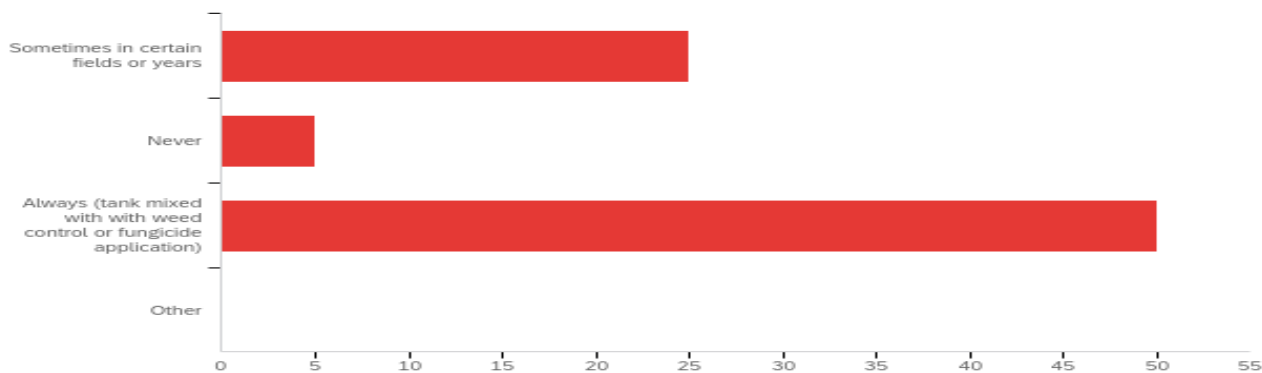
#	Answer	%	Count
1	Endura	16.39%	20
2	Omega	17.21%	21
3	Propulse	47.54%	58
4	TopsinM	7.38%	9
5	Aproach	0.00%	0
6	Other	4.92%	6
7	Priaxor	6.56%	8
	Total	100%	122

Q26 - On a 5 year average, how many white mold fungicide applications do you plan?



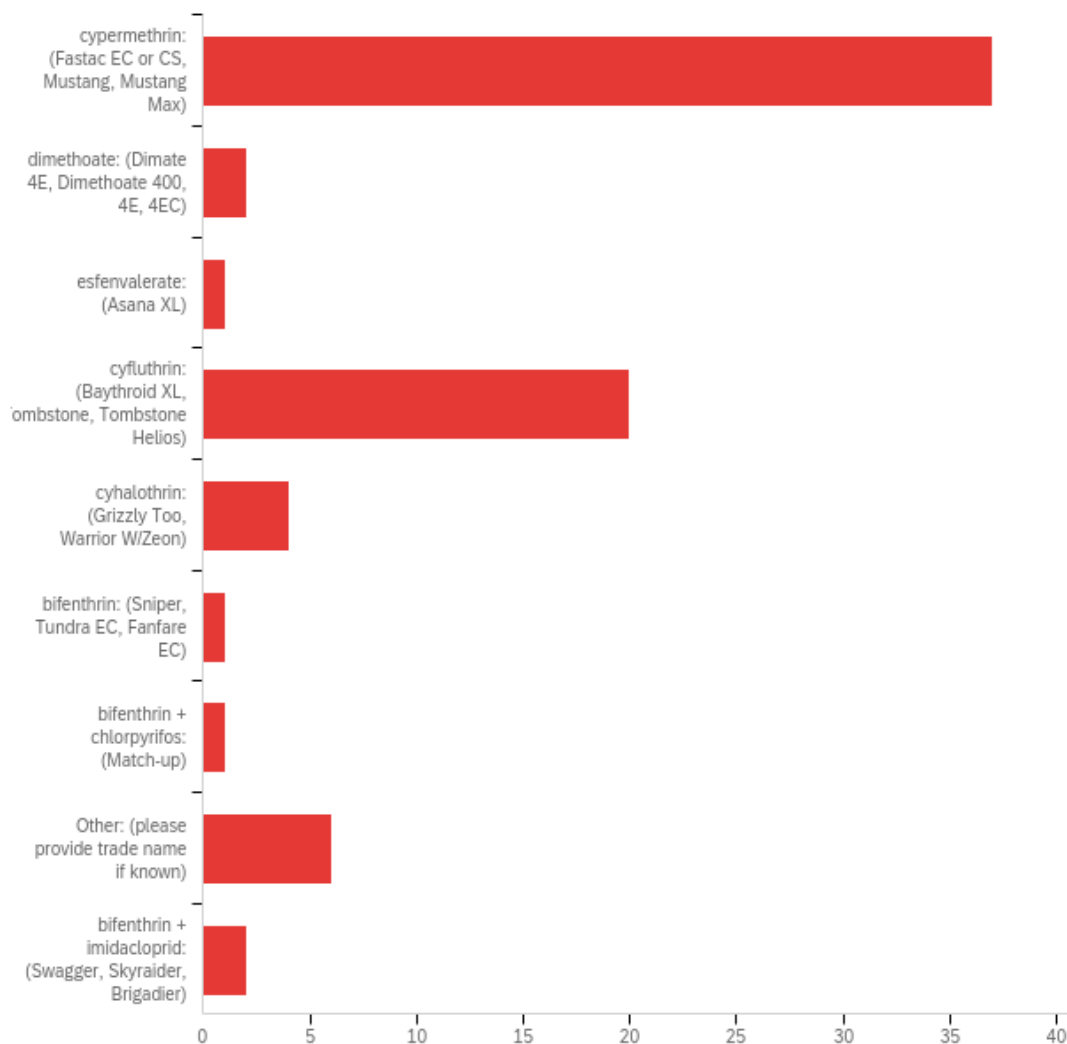
#	Answer	%	Count
1	0	2.53%	2
2	1	43.04%	34
3	2	46.84%	37
4	3	6.33%	5
6	Other	1.27%	1
	Total	100%	79

Q27 - Do you use a foliar insecticide?



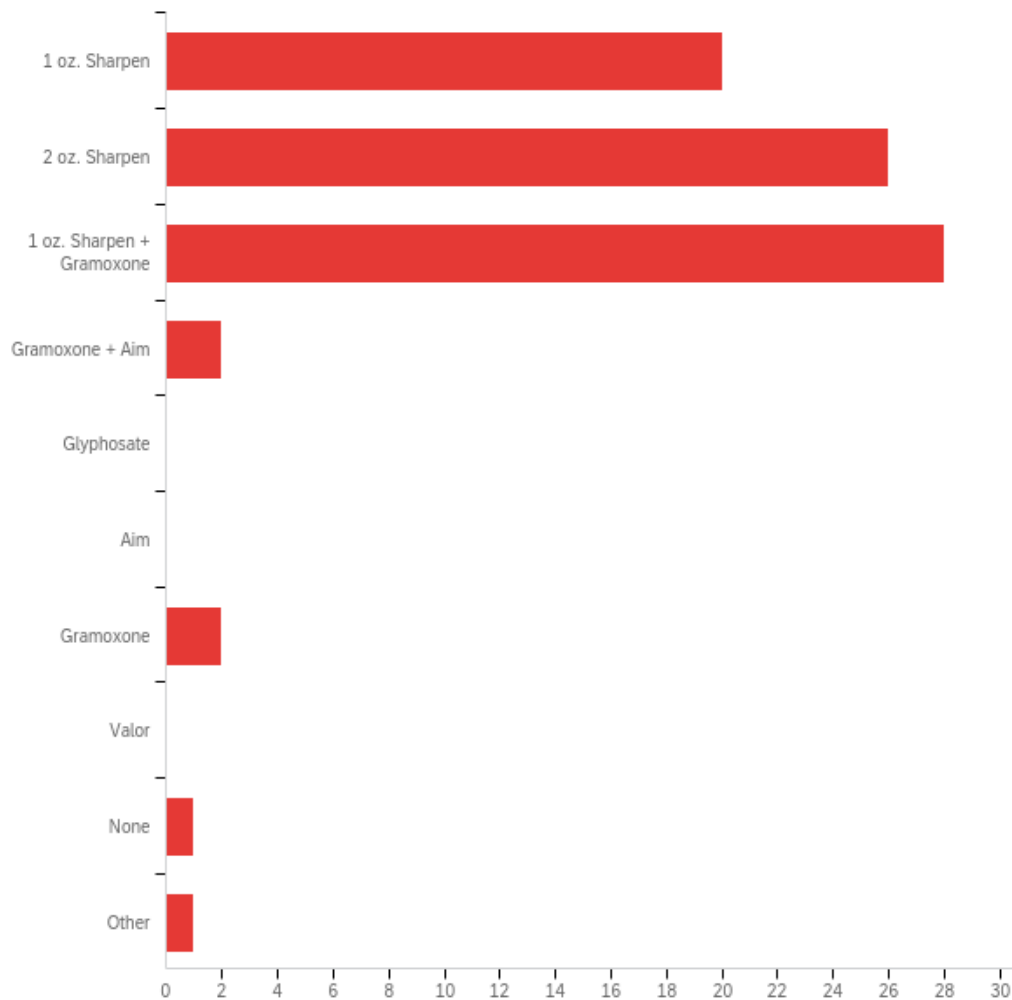
#	Answer	%	Count
1	Sometimes in certain fields or years	31.25%	25
2	Never	6.25%	5
4	Always (tank mixed with weed control or fungicide application)	62.50%	50
5	Other	0.00%	0
	Total	100%	80

Q28 - What is your most preferred/used insecticide?



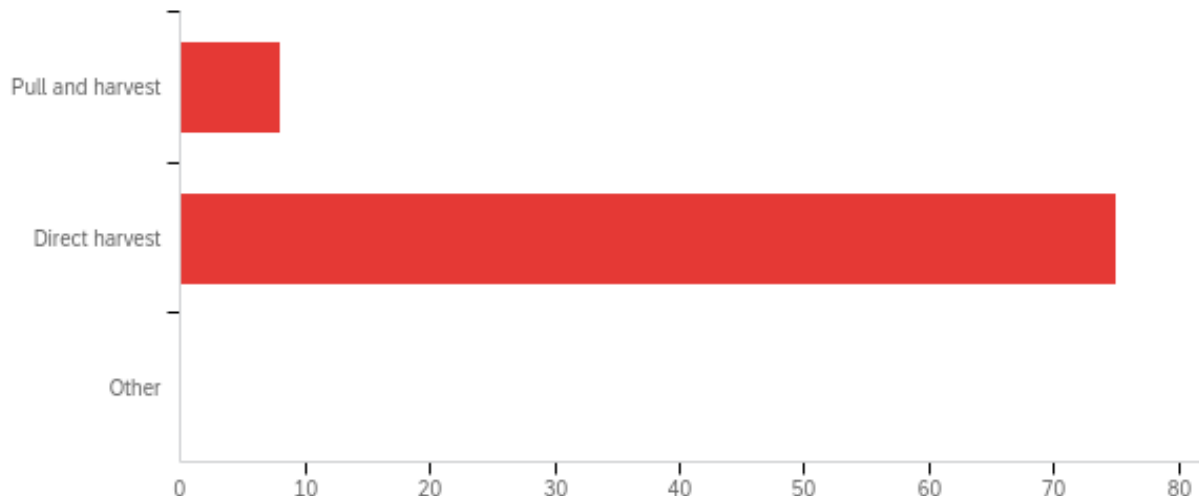
#	Answer	%	Count
1	cypermethrin: (Fastac EC or CS, Mustang, Mustang Max)	50.00%	37
2	dimethoate: (Dimate 4E, Dimethoate 400, 4E, 4EC)	2.70%	2
3	esfenvalerate: (Asana XL)	1.35%	1
4	cyfluthrin: (Baythroid XL, Tombstone, Tombstone Helios)	27.03%	20
5	cyhalothrin: (Grizzly Too, Warrior W/Zeon)	5.41%	4
6	bifenthrin: (Sniper, Tundra EC, Fanfare EC)	1.35%	1
7	bifenthrin + chlorpyrifos: (Match-up)	1.35%	1
8	Other: (please provide trade name if known)	8.11%	6
9	bifenthrin + imidacloprid: (Swagger, Skyraider, Brigadier)	2.70%	2
	Total	100%	74

Q29 - What is your most preferred harvest aid?



#	Answer	%	Count
1	1 oz. Sharpen	25.00%	20
2	2 oz. Sharpen	32.50%	26
3	1 oz. Sharpen + Gramoxone	35.00%	28
4	Gramoxone + Aim	2.50%	2
5	Glyphosate	0.00%	0
6	Aim	0.00%	0
7	Gramoxone	2.50%	2
8	Valor	0.00%	0
9	None	1.25%	1
10	Other	1.25%	1
	Total	100%	80

Q30 - What is the preferred method of dry bean harvest on your farm? (Please select all that apply)

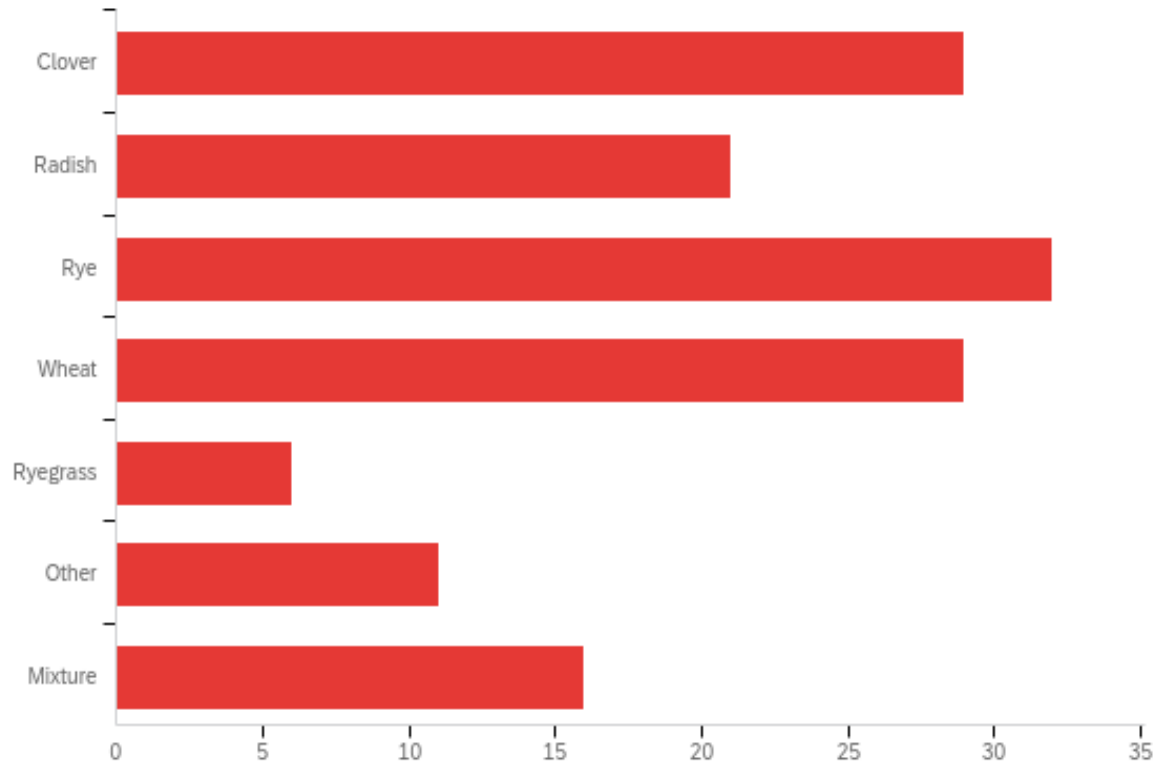


#	Answer	%	Count
1	Pull and harvest	9.64%	8
2	Direct harvest	90.36%	75
4	Other	0.00%	0
	Total	100%	83

Q31 - What percentage of your farm acres would have a cover crop?

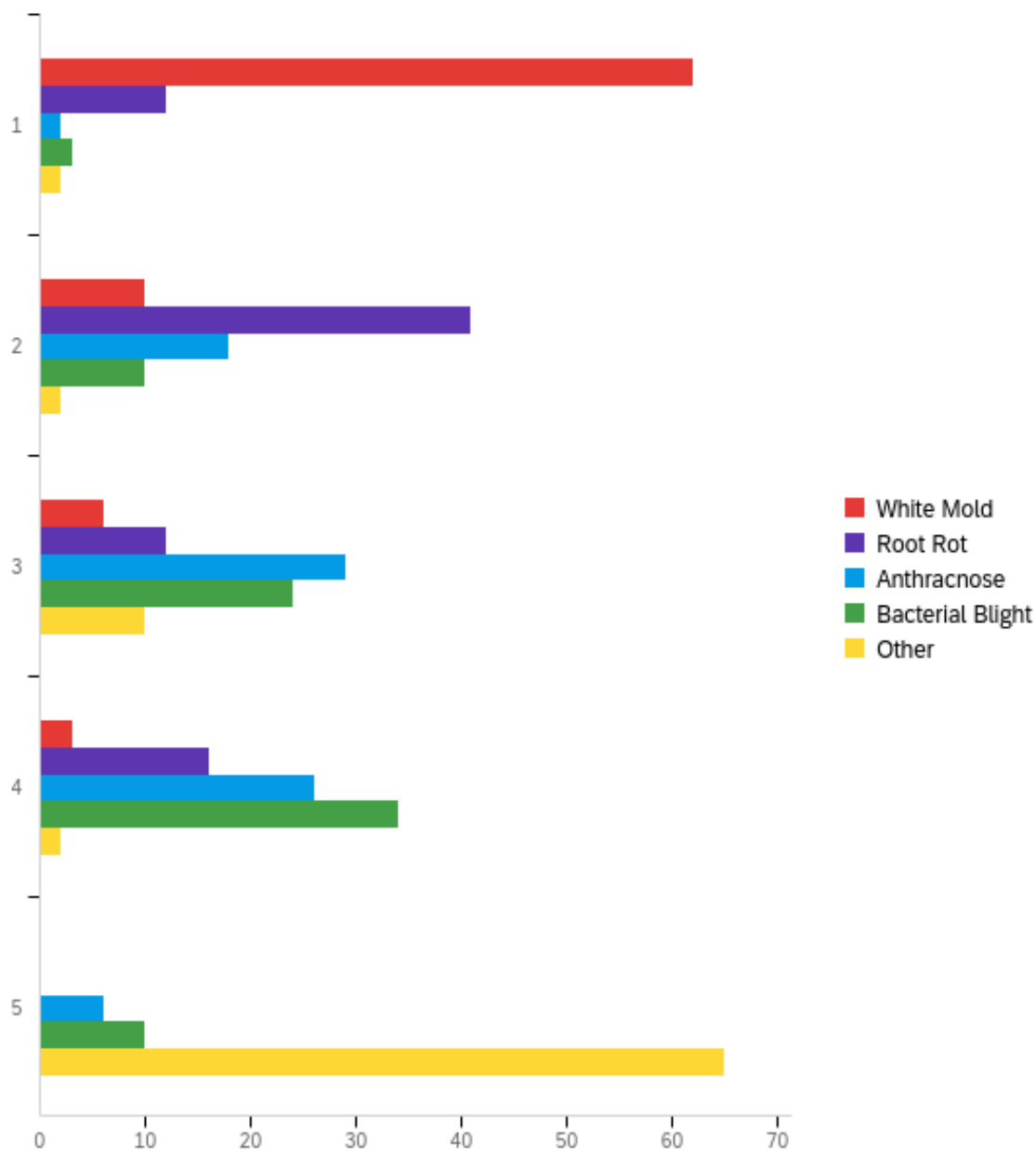
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	6	5.00	100.00	50.46	25.86	668.61	78

Q32 - What is your most preferred cover crop? (Please select all that apply)



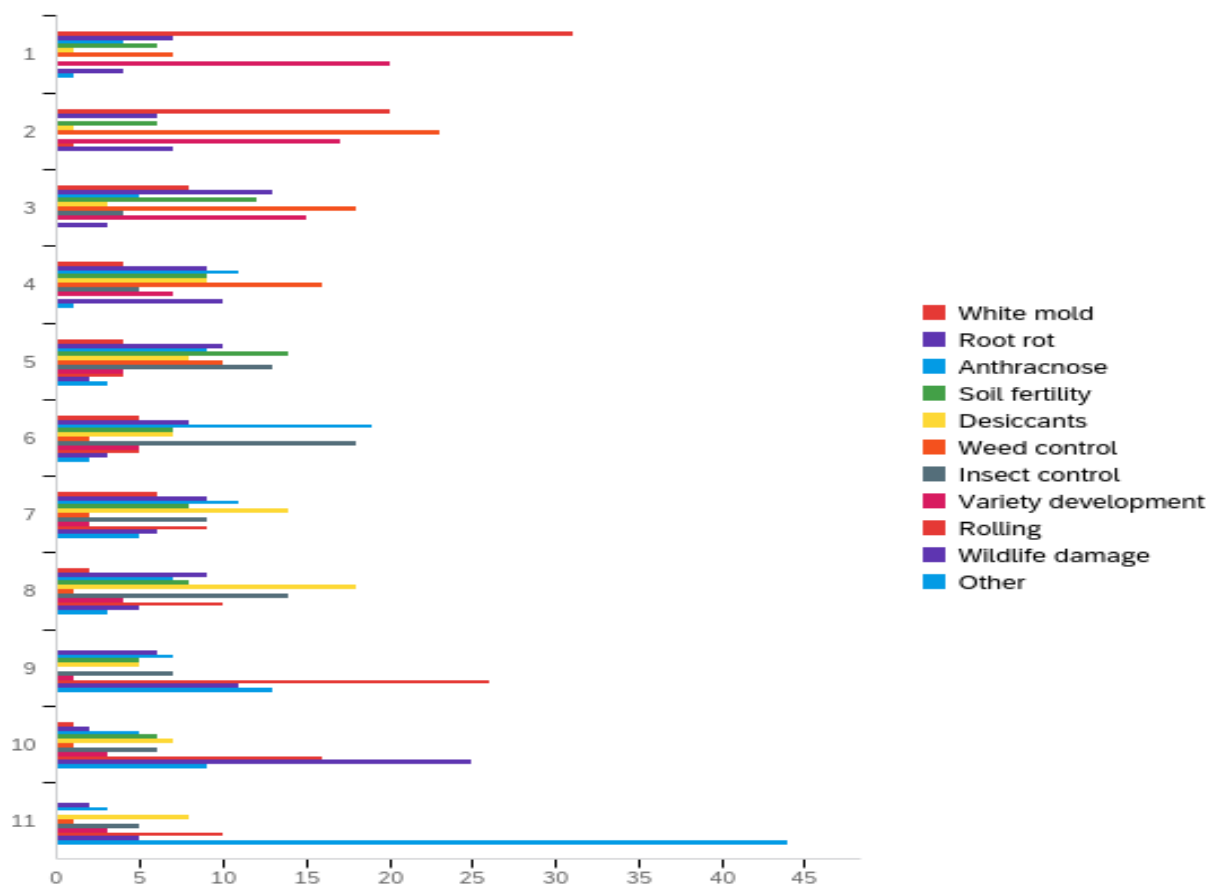
#	Answer	%	Count
1	Clover	20.14%	29
2	Radish	14.58%	21
3	Rye	22.22%	32
4	Wheat	20.14%	29
5	Ryegrass	4.17%	6
6	Other	7.64%	11
8	Mixture	11.11%	16
	Total	100%	144

Q33 - 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)



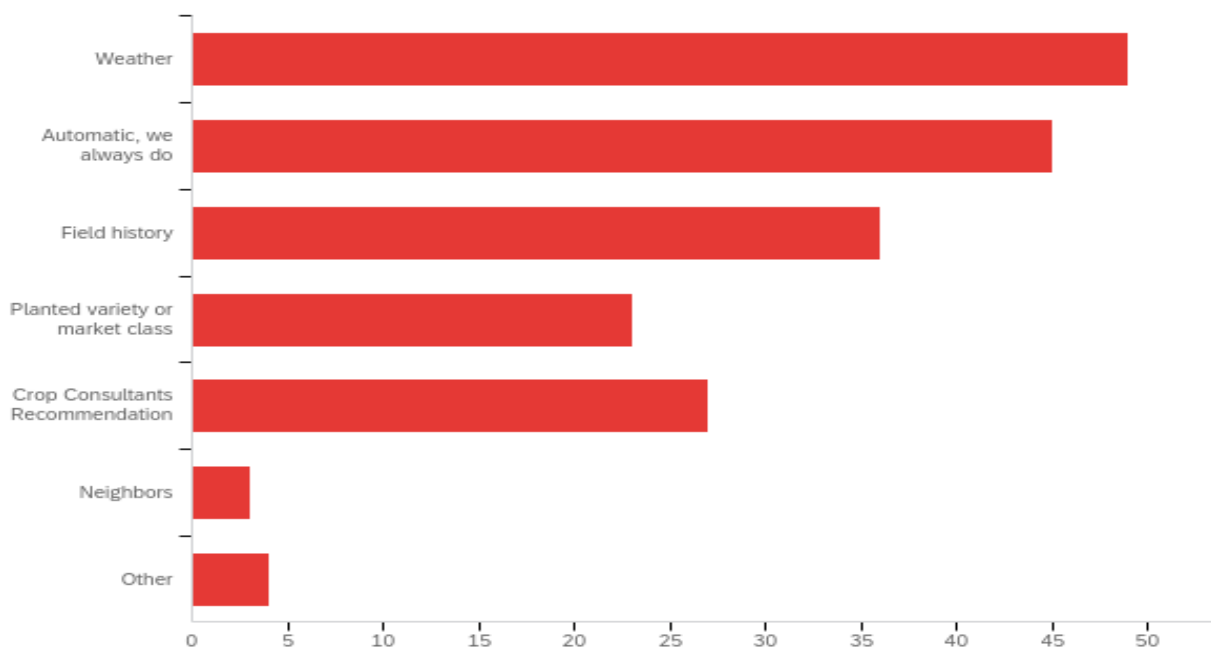
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	White Mold	1.00	4.00	1.38	0.78	0.61	81
2	Root Rot	1.00	4.00	2.40	0.96	0.93	81
3	Anthracnose	1.00	5.00	3.20	0.95	0.90	81
4	Bacterial Blight	1.00	5.00	3.47	0.98	0.97	81
5	Other	1.00	5.00	4.56	0.97	0.94	81

Q34 - 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
1	White mold	1.00	10.00	2.83	2.23	4.96	81
6	Weed control	1.00	11.00	3.41	1.86	3.48	81
8	Variety development	1.00	11.00	3.64	2.81	7.88	81
2	Root rot	1.00	11.00	5.22	2.64	6.99	81
4	Soil fertility	1.00	10.00	5.27	2.59	6.69	81
3	Anthracnose	1.00	11.00	6.19	2.36	5.58	81
7	Insect control	3.00	11.00	6.89	2.09	4.37	81
5	Desiccants	1.00	11.00	7.10	2.38	5.64	81
10	Wildlife damage	1.00	11.00	7.17	3.18	10.12	81
9	Rolling	2.00	11.00	8.63	1.75	3.07	81
11	Other	1.00	11.00	9.65	2.01	4.05	81

Q35 - How do you determine when or if you will apply a white mold fungicide? (Please check all that apply)



#	Answer	%	Count
1	Weather	26.20%	49
3	Automatic, we always do	24.06%	45
4	Field history	19.25%	36
5	Planted variety or market class	12.30%	23
6	Crop Consultants Recommendation	14.44%	27
7	Neighbors	1.60%	3
8	Other	2.14%	4
	Total	100%	187

TEXT - Other

Other - Text

No white mold pressure

If rows are not closed I don't spray

At pin pod

Q36 - Please indicated what percent of your Black Bean acres were planted to each variety in 2023

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Black Bear	0.00	100.00	7.58	23.96	573.99	62
2	Black Beard	0.00	100.00	16.32	28.39	806.18	63
3	Spectre	0.00	100.00	34.13	33.54	1124.81	63
4	Black Tails	0.00	0.00	0.00	0.00	0.00	63
5	Zenith	0.00	100.00	5.32	18.01	324.50	63
6	Nimbus	0.00	100.00	28.04	29.81	888.57	63
7	Adams	0.00	50.00	0.79	6.25	39.05	63
8	Other	0.00	100.00	1.59	12.50	156.21	63

TEXT - Other

Zorro

Q37 - Please indicated what percent of your Navy Bean acres were planted to each variety in 2023

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Merlin	0.00	40.00	3.75	10.54	111.15	30
2	Medalist	0.00	100.00	6.08	18.88	356.53	30
3	HMS Bounty	0.00	100.00	47.33	38.49	1481.22	30
4	Vigilant	0.00	0.00	0.00	0.00	0.00	30
5	Victory	0.00	20.00	0.67	3.59	12.89	30
6	Liberty	0.00	100.00	23.50	27.57	760.25	30
7	Blizzard	0.00	100.00	6.00	20.26	410.67	30
8	Other	0.00	10.00	0.67	2.49	6.22	30

TEXT - Other

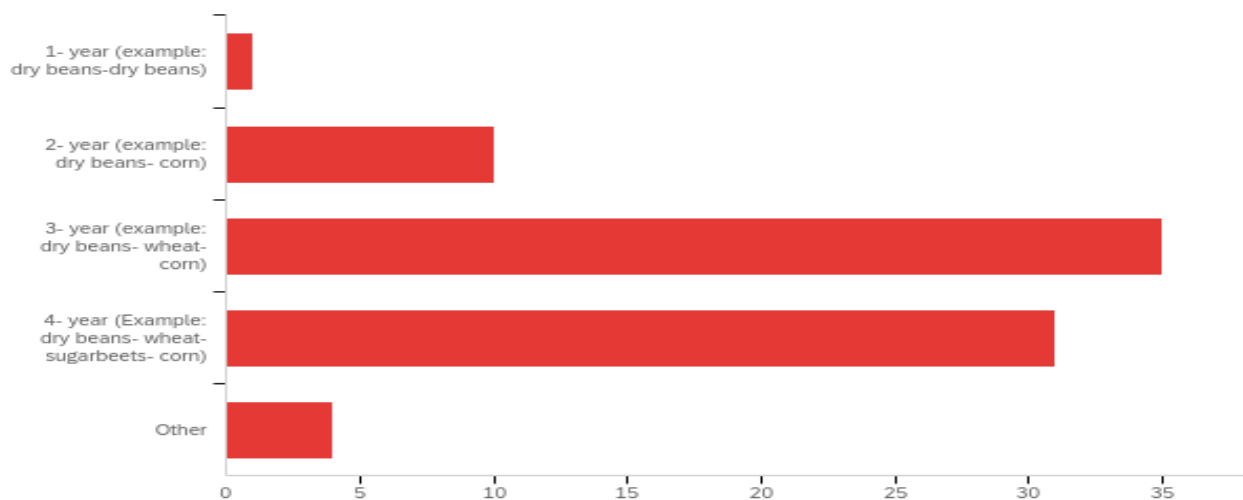
Armada



Q38 - Please indicated what percent of your Small Red acres were planted to each variety in 2023

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Viper	0.00	350.00	99.26	56.24	3162.41	27
2	Merlot	0.00	100.00	3.70	18.89	356.65	27
3	Ruby	0.00	20.00	0.74	3.78	14.27	27
4	Other	0.00	0.00	0.00	0.00	0.00	27

Q39 - How many year rotation are your dry beans in?



#	Answer	%	Count
1	1- year (example: dry beans-dry beans)	1.23%	1
2	2- year (example: dry beans- corn)	12.35%	10
3	3- year (example: dry beans- wheat- corn)	43.21%	35
4	4- year (Example: dry beans- wheat- sugarbeets- corn)	38.27%	31
5	Other	4.94%	4
	Total	100%	81

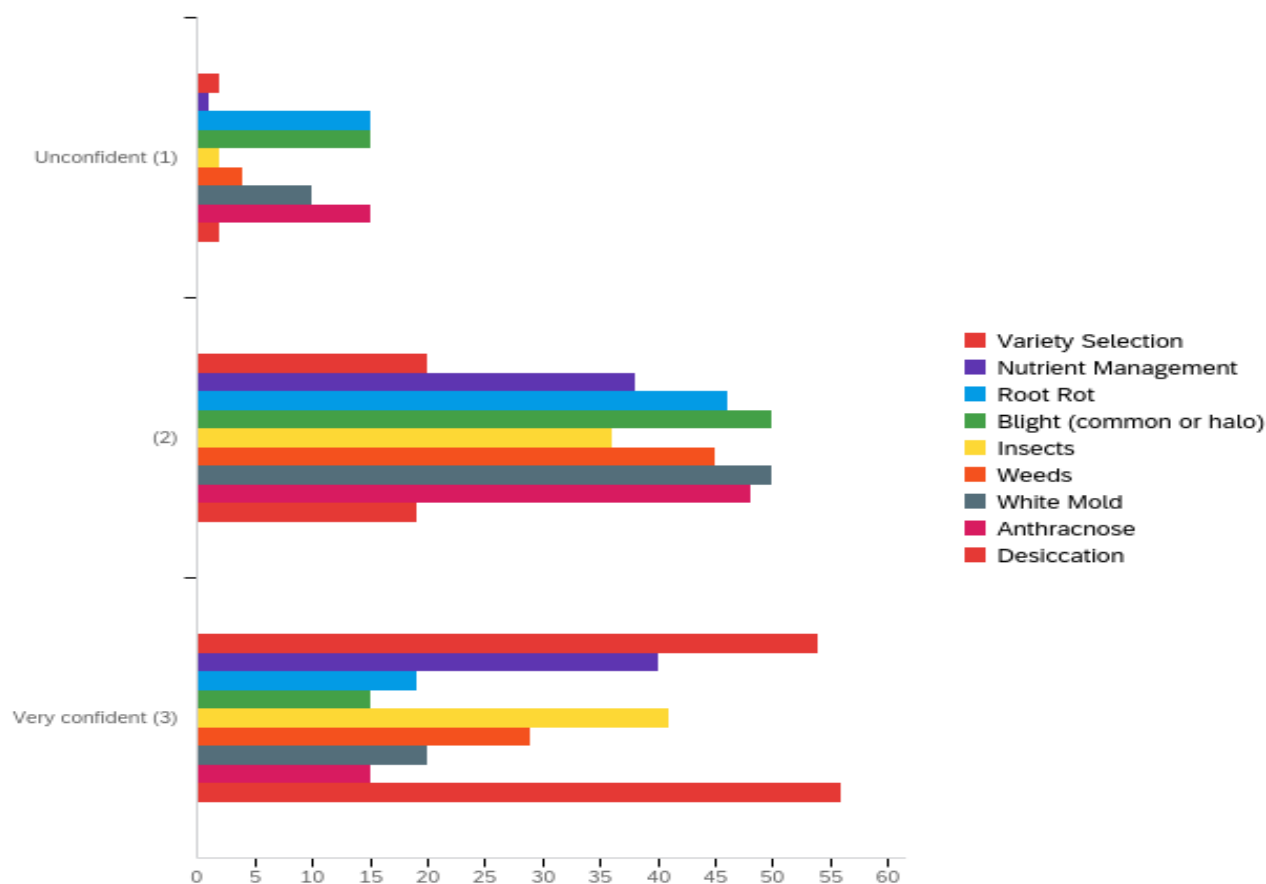
TEXT - Other

Dry beans-dry beans-wheat-sugar beets

New

2-4 year

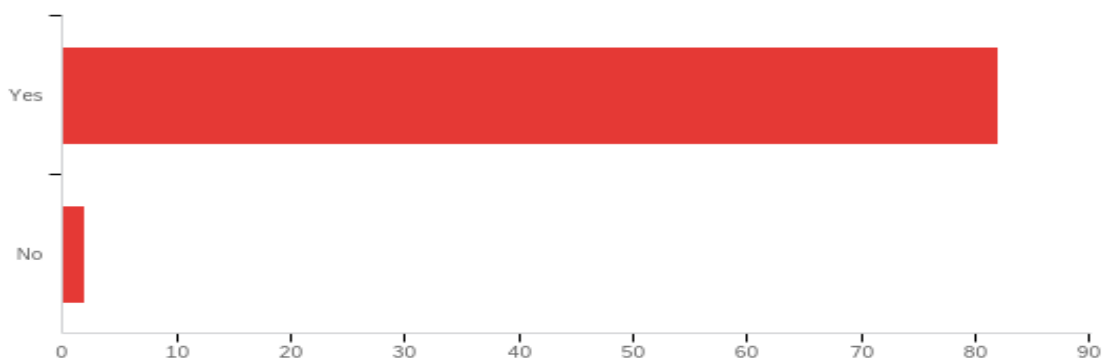
Q40 - How confident do you feel in the decisions you make in the management of dry beans in the following categories:



#	Question	Unconfident (1)		(2)		Very confident (3)		Total
1	Variety Selection	2.63%	2	26.32%	20	71.05%	54	76
2	Nutrient Management	1.27%	1	48.10%	38	50.63%	40	79
3	Root Rot	18.75%	15	57.50%	46	23.75%	19	80
4	Blight (common or halo)	18.75%	15	62.50%	50	18.75%	15	80
5	Insects	2.53%	2	45.57%	36	51.90%	41	79
6	Weeds	5.13%	4	57.69%	45	37.18%	29	78
7	White Mold	12.50%	10	62.50%	50	25.00%	20	80
8	Anthracnose	19.23%	15	61.54%	48	19.23%	15	78
9	Desiccation	2.60%	2	24.68%	19	72.73%	56	77

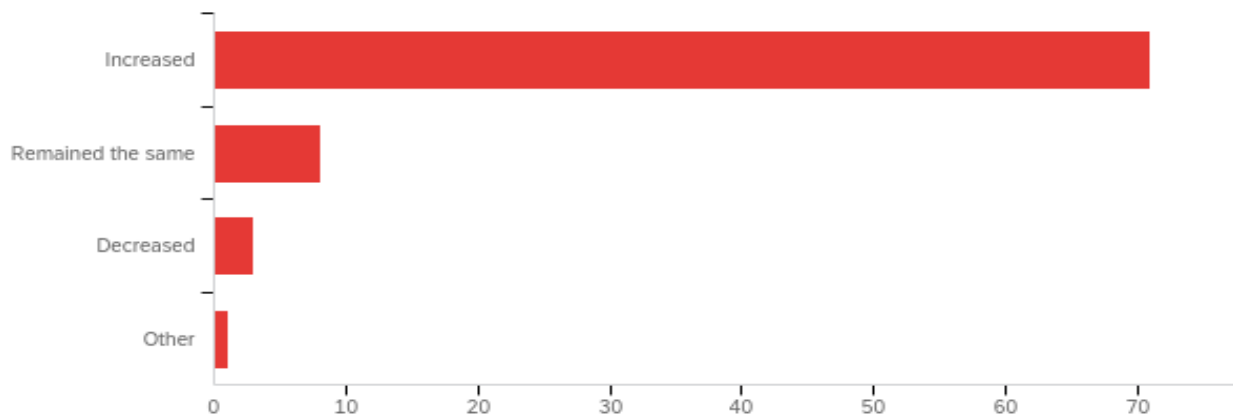


Q41 - From work done by the Michigan Bean Commission/MSU have you gained knowledge about science based practices to manage pest/diseases on your farm?



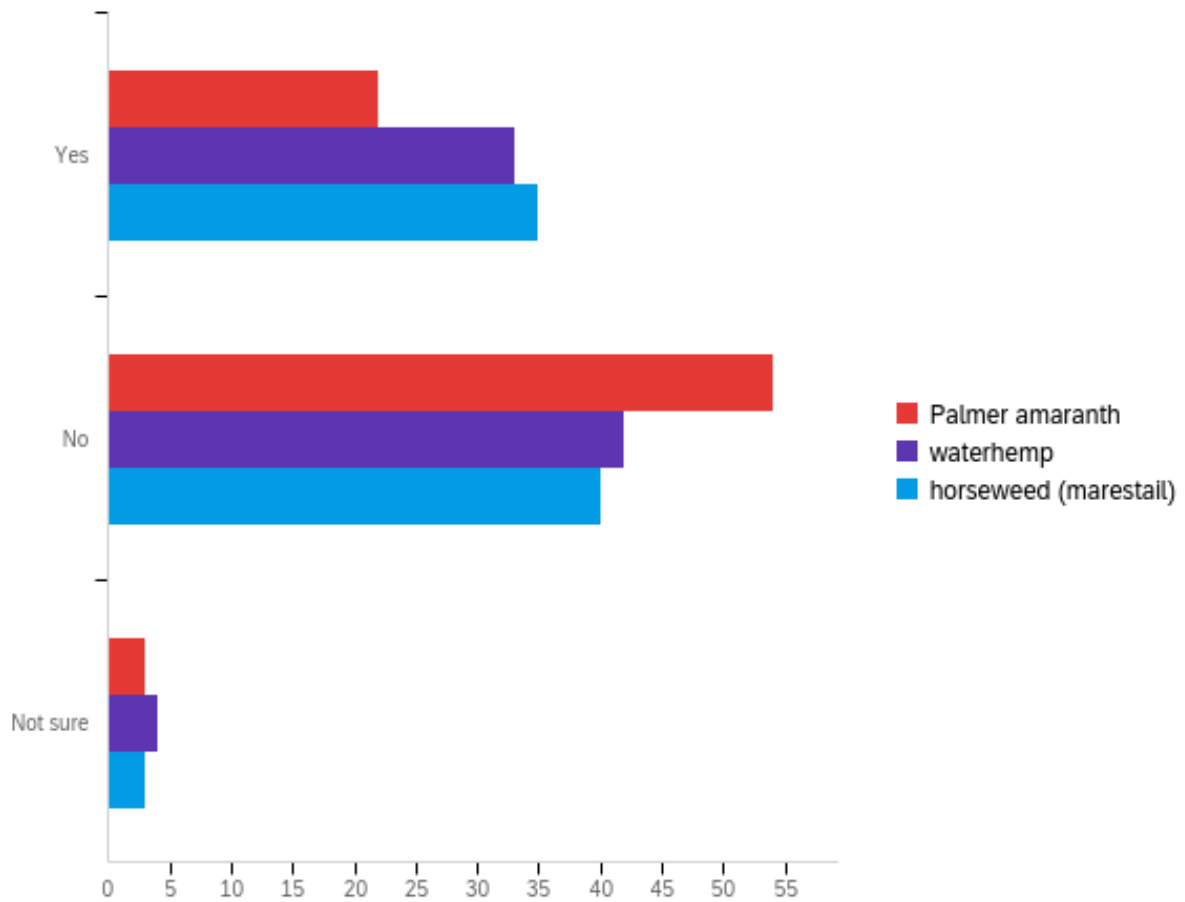
#	Answer	%	Count
1	Yes	97.62%	82
2	No	2.38%	2
	Total	100%	84

Q42 - On average my dry bean yields have _____ over the past 5 years.



#	Answer	%	Count
1	Increased	85.54%	71
2	Remained the same	9.64%	8
3	Decreased	3.61%	3
4	Other	1.20%	1
	Total	100%	83

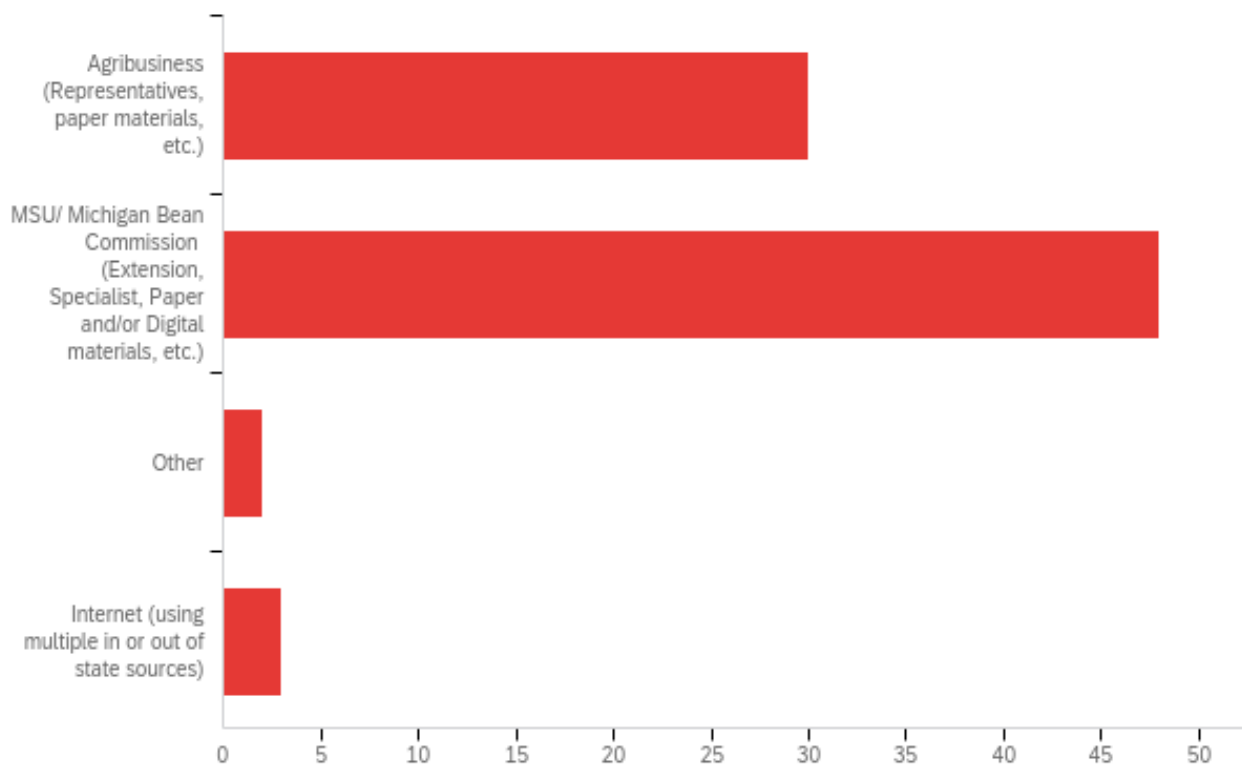
Q43 - When producing dry beans Is the control of waterhemp, Palmer amaranth, or horseweed (marestail) a challenge on your farm?



#	Question	Yes		No		Not sure		Total
1	Palmer amaranth	27.85%	22	68.35%	54	3.80%	3	79
2	waterhemp	41.77%	33	53.16%	42	5.06%	4	79
3	horseweed (marestail)	44.87%	35	51.28%	40	3.85%	3	78



Q44 - 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.)	36.14%	30
2	MSU/ Michigan Bean Commission (Extension, Specialist, Paper and/or Digital materials, etc.)	57.83%	48
3	Other	2.41%	2
4	Internet (using multiple in or out of state sources)	3.61%	3
	Total	100%	83

TEXT - Other

Scouting

Crop consultant



MICHIGAN BEAN COMMISSION

Production Research Advisory Board

Production Practices Survey

1. Open the camera on your smartphone
2. Hold it over the QR code below
3. Click on the link that appears at the top of the screen
4. Complete the survey on dry bean production practices and help direct future research!

Thank you!



We thank 2024 PRAB Board
Members for their service:

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