

Appendix 1. Survey questions administered to Montana Grain Growers Association members.

| No | Question | Response Type | Options |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | What is your primary occupation? | Text | |
| 2 | What percentage of your farm is irrigated? | Numeric Response | |
| 3 | What is your age? | Numeric Response | |
| 4 | What percentage (if any) of your farm is certified organic? | Numeric Response | |
| 5 | What is the average number of acres you grow row crops on each year? | Multi-choice | 1-500, 501-1500, 1501-3000 |
| 6 | If in the future precipitation were to decrease significantly for 10 years, how many new crops would you sow on your farm to adapt to the drought? | Multi-choice | 1 – 6 |
| 7 | What crops would you choose | open-ended | |
| 8 | In the above scenario, what other management practices would you change on your farm to adapt? | open-ended | |
| 9 | What type and sources (people or otherwise) would you turn to for guidance on farming matters if you weren't sure how to deal with decreased precipitation? Rate the following sources (by ticking a box) where 1 indicates you wouldn't use the source at all and 10 indicates you would definitely consult the source | Likert | Internet forums, farm magazines, extension agents, university/extension personnel (not agents)/websites, crop advisers, chemical/crop dealers/associated websites, other farmers/neighbors, family members, personal experience, other (please list) |
| 10 | Of the following extreme events that may have impacted your production, have you experienced them more frequently, less frequently, or no change? | Multi-choice | hail, prolonged drought, flooding, unexpected freezes, low crop prices, high input prices, pest outbreaks, severe weed competition |
| 11 | If the extreme events listed above became more frequent in the future, how would you respond (e.g. plant new crops, longer fallow periods, expanded acreage)? | open-ended | |
| 12 | What additional resources would you require to make the change (e.g. more info on drought tolerant crops, additional gov't support)? | open-ended | |
| 13 | How have you specifically altered your farming practices since you started farming (e.g. switching to no-till, using guidance, increased number of crops in rotation, hiring farm workers)? What motivated you to perform the change? | Yes/No and open-ended | more crops in rotation, pulses/legumes in rotation, stopped/reduced summer fallow, no-tillage, minimum tillage, precision guidance, variable fertilizer application, variable herbicide/fungicide application, increase/variable seeding rates, yield mapping, protein mapping, soil mapping, hiring more farm workers, hiring less farm help, outsourcing help (e.g. contract harvesting), organic from conventional, other |
| 14 | When you made those decisions, did you get your information from the same places listed in question 8? If not, who or what did you use? | open-ended | |