

Broccoli Grower Survey

If you would prefer to complete this survey online, please go to this link: <http://bit.ly/BroccoliGrowerSurvey>

- (1) In what state _____ and county/region _____ do you farm?
- (2) How many years have you been growing broccoli? _____
- (3) How many acres do you grow of broccoli? _____ and other brassicas _____?
- (4) What varieties of broccoli do you grow? _____
- (5) What other brassicas do you commercially grow (circle all that apply)?
 Brussel Sprouts Cabbage Cauliflower Collards Kale Other (specify) _____

(6) How would you rate the following challenges currently facing the U.S. broccoli industry?

	Not a challenge	Somewhat challenging	Very challenging
Broccoli prices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Changes in consumer demand or taste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marketing and retailing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
California competition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
International competition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disease pressures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insect pressures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weed pressures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heat tolerance of available broccoli varieties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(7) How concerned are you about broccoli losses due to Alternaria leaf blight and head rot (ABHR)?

Not concerned Slightly concerned Moderately concerned Very concerned Extremely concerned

(8) Based on experience in your area, has ABHR become more or less of a problem in the past 5 years?

Less of a problem No Change More of a problem

(9) Thinking about the entire U.S. broccoli industry, what percentage of the U.S. broccoli crop do you estimate is lost due to Alternaria leaf blight and head rot (ABHR)?

0% 5% 10% 15% 20% 25% 30% 40% 50% Other _____%

(10) For growers in your area over the past 5 years, what would you estimate is the minimum, average, and maximum % of their crop in a year lost due to ABHR (circle one option for each question)?

Max % lost	0%	5%	10%	15%	20%	25%	30%	40%	50%	Other _____%
Average % lost	0%	5%	10%	15%	20%	25%	30%	40%	50%	Other _____%
Minimum % lost	0%	5%	10%	15%	20%	25%	30%	40%	50%	Other _____%

(11) How do you rate your ability to identify Alternaria leaf blight and head rot (ABHR) in broccoli?

Very good Moderate Limited No ability

(12) What are your main sources of information about how to manage ABHR (circle all that apply)?

- (a) My own experience and/or research (b) Agrochemical company (c) Other growers
 (d) University-based Extension service or researcher (e) Other (describe) _____

(13) How well equipped (chemicals, varieties, knowledge, etc.) do you feel to manage these challenges?

	Somewhat or not at all equipped	Moderately equipped	Very well or extremely well equipped
Alternaria leaf blight and head rot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fungal diseases other than ABHR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bacterial diseases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Atypical temperature and rainfall patterns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(14) Based upon your experience, how effective do you perceive the following practices to be for reducing broccoli losses from Alternaria leaf blight and head rot (ABHR)? Do you use these practices?

	How effective do you think this practice is for reducing losses from Alternaria leaf blight and head rot (ABHR)?				I use this practice to reduce broccoli losses from ABHR	
	Slightly or not effective	Moderately effective	Very effective	I do not know	Yes	No
Broad spectrum protectant fungicides (e.g., Bravo [®])	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quadris [®] fungicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quadris Top [®] fungicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other fungicides (e.g., Switch [®] , Endura [®] , Priaxor [®] , Inspire Super [®] , etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organic fungicides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use certified pathogen-free seeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manage weeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rotate every 2-3 years with a non-brassica	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Destroy refuge and cull piles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ensure good aeration within crop canopy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Planting in sites with good drainage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Orienting rows with prevailing winds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using straw mulch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roguing and destroying infected plants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Only handling plants when dry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having workers sanitize hands and equipment prior to entering the field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Avoid excessive nitrogen fertilization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Avoid overhead irrigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(15) Based upon your experience, how common for growers in your area are crop losses due to ABHR?

	Not common	Somewhat common	Very common
Broccoli	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brussel Sprouts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cauliflower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cabbage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you very much for completing this survey and helping our research team better understand the scale and scope of the ABHR problem for broccoli growers. For more information on our project, please visit <https://alternariabroccoliproject.uga.edu/welcome/>