

BMSB Impact Survey

First year of longitudinal study on
the impact of the Brown
Marmorated stink bug

4 key states, VA, PA, MD and NJ

26 sites (Grower and commodity
meetings)

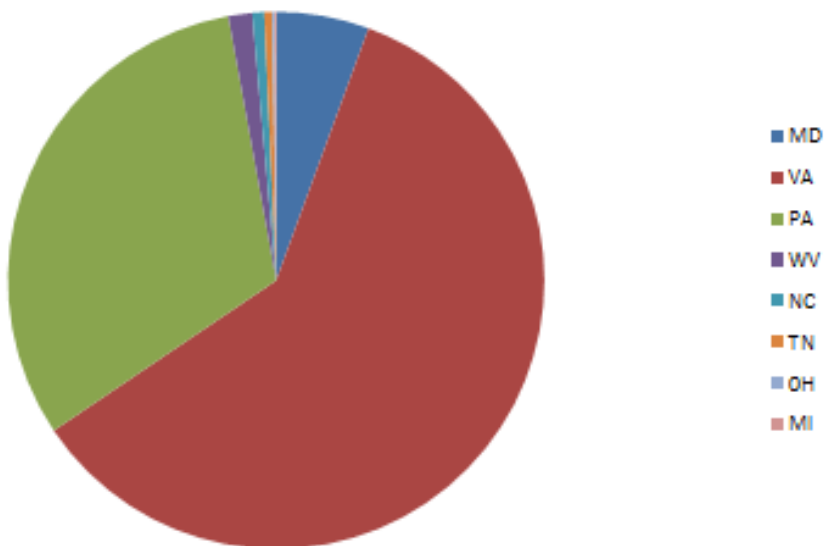
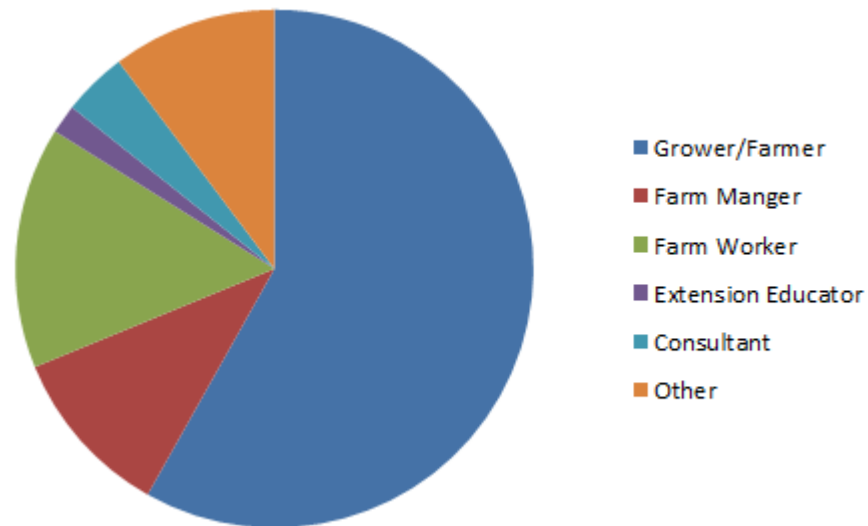
Economic, societal, and
educational

Poster

1. Who are you? Describe your primary occupation. Circle all that apply, if more then on put a #1 next to your main profession.

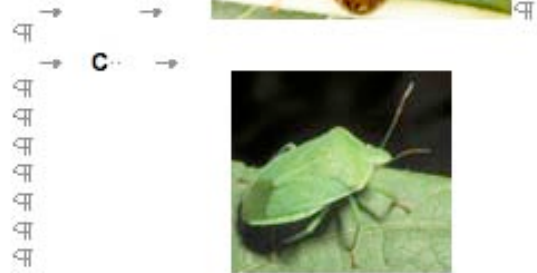
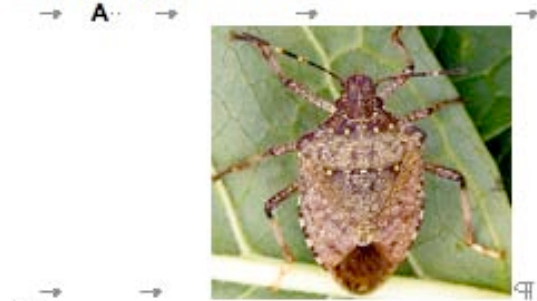
- A. Grower / Farmer (I own the business)
- B. Farm Manager (I manage the business)
- C. Farm Worker
- D. Extension Educator
- E. Consultant / Advisor on pests, crops
- F. Researcher
- G. Other: _____

2. Where do you work?

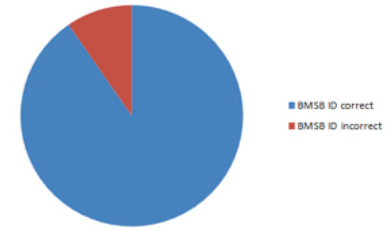


Question 3: ID

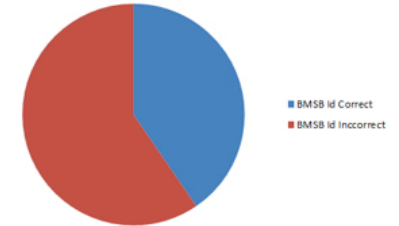
3. Which of the four pictures is a Brown Marmorated Stink Bug (BMSB)? Circle the letter next to ALL that appear to be BMSB.



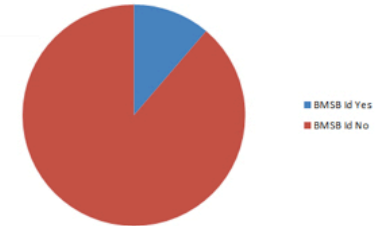
E. I do not know



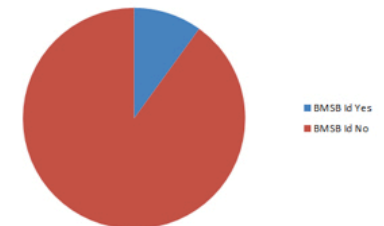
Q3A: 2012 Photograph of adult Brown Marmorated stink bug "Is this a BMSB?" 771 "yes", 82 "no"



Q3B: 2012 Photograph of nymph Brown Marmorated stink bug "Is this a BMSB?" 345 "yes", 508 "no"



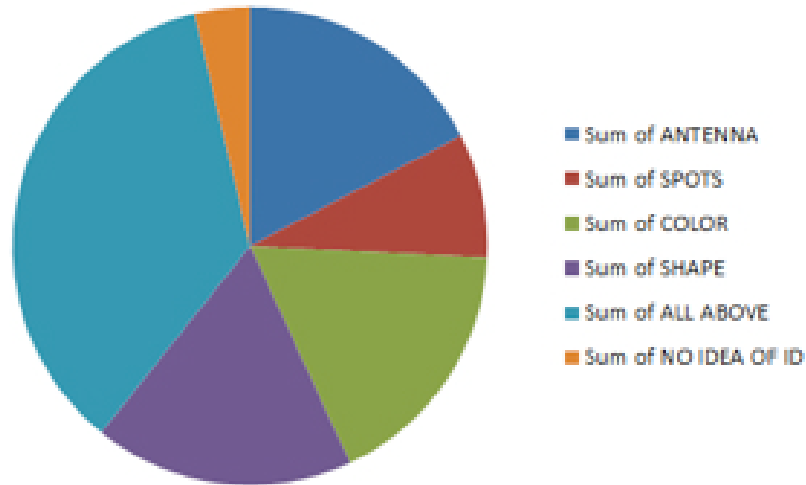
Q3C: 2012 Photograph of Green stink bug "Is this a BMSB?" 96 "yes", 758 "no"



Q3D: 2012 Photograph of Leaf-footed bug "Is this a BMSB?" 85 "yes", 769 "no"

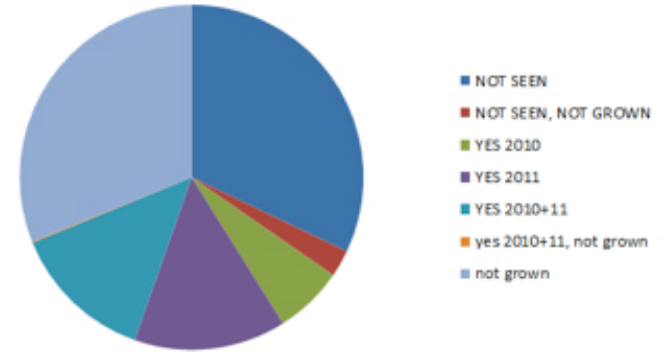
4. Based on the previous question with the photos of insects, How do you know which ones were the BMSB?

- A. White bands on antenna
- B. Alternating spots on back edge
- C. Color pattern
- D. Shape
- E. All of the above
- F. I do not know what a BMSB looks like

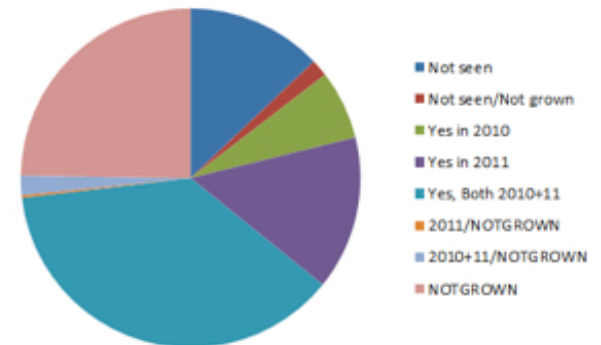


Q4: 2012 What characteristics do you use to ID the BMSB?

C. EXPERIENCE WITH BMSB DAMAGE



Q5: 2012 Sweet Corn: Have you seen this damage? Not seen- 253, not grown - 20, yes 2010 ???, yes 2011 113, yes both 2010 and 201- 106, not grown - 245



Q5: 2012 Apple or other tree fruit: Have you seen this damage? Not seen- 104, not grown - 13, yes 2010 53, yes 2011 118, yes both 2010 and 2010- 300, not grown combined - 216

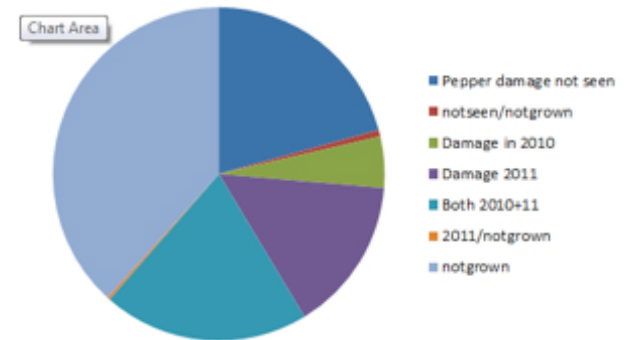
5. Have you ever seen this damage?

- Photo (1) Field or sweet corn
- A. Never
- B. Yes, in 2010
- C. Yes, in 2011
- D. Yes, in both 2010 & 2011
- E. Did not grow this crop

Photo (2) Apple or other tree fruit

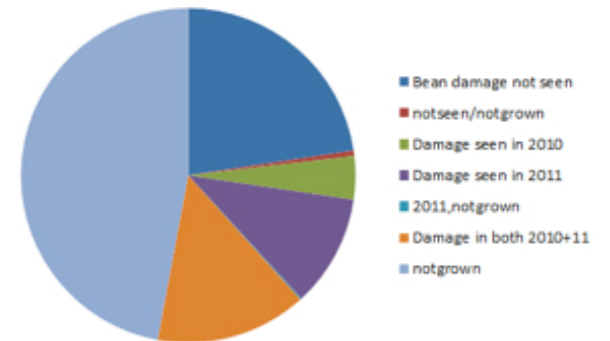
- A. Never
- B. Yes, in 2010
- C. Yes, in 2011
- D. Yes, in both 2010 & 2011
- E. Did not grow this crop

- Photo (3) Pepper or Tomato
- A. Never
- B. Yes, in 2010
- C. Yes, in 2011
- D. Yes, in both 2010 & 2011
- E. Did not grow this crop
-



Q5: 2012 Pepper or other vegetable: Have you seen this damage? Not seen- 163, not grown - 5, yes 2010 39, yes 2011 118, yes both 2010 and 2010- 158, not grown combined - 301

- Photo (4) Soy or Green Bean
- A. Never
- B. Yes, in 2010
- C. Yes, in 2011
- D. Yes, in both 2010 & 2011
- E. Did not grow this crop
-

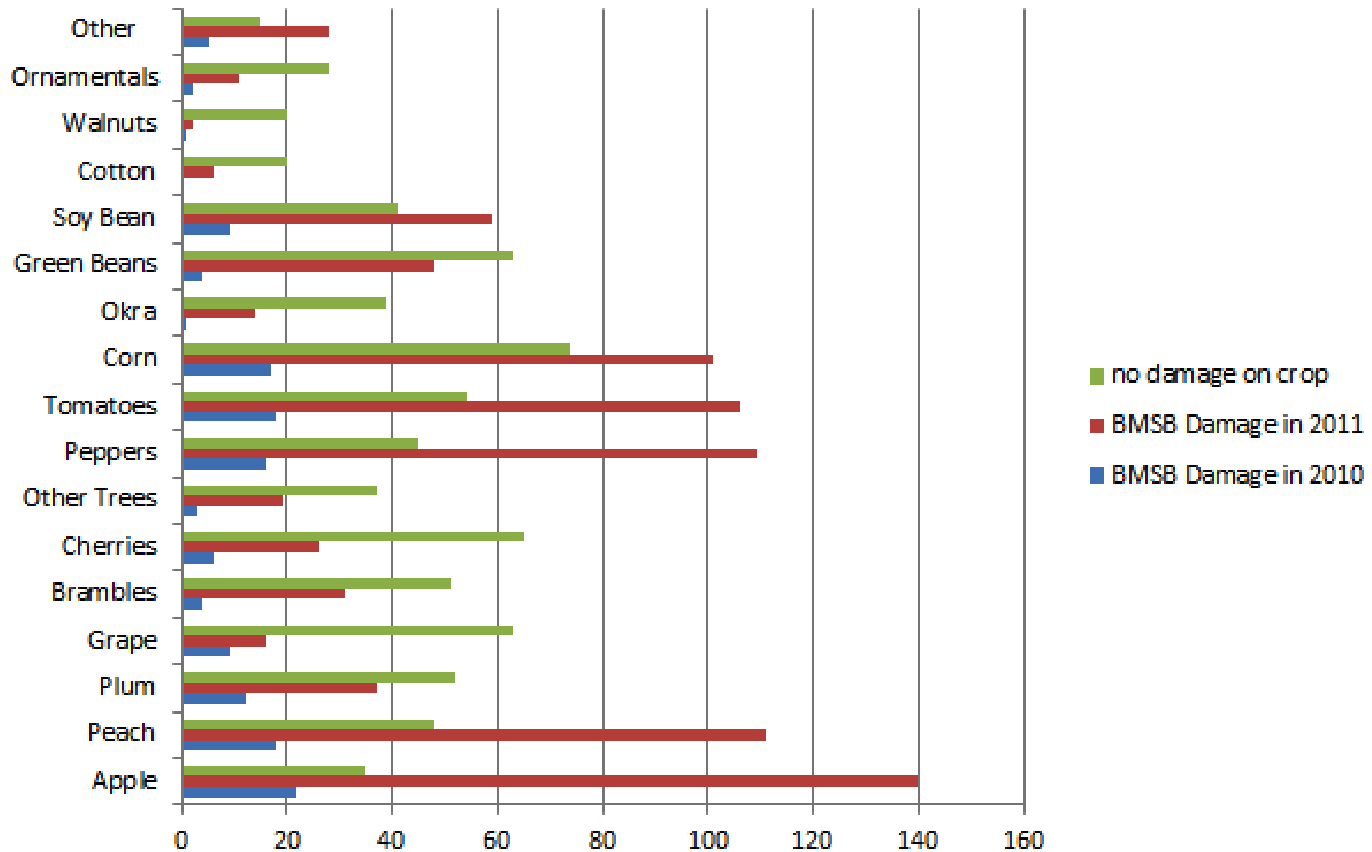


Q5: 2012 Beans: Have you seen this damage? Not seen- 173, not grown - 4, yes 2010 32, yes 2011 83, yes both 2010 and 2010- 112, not grown - 360

6. On which of the following crops did you have BMSB damage? (Please select all that apply). “no damage yet” means that you grew that crop, but have not had damage.

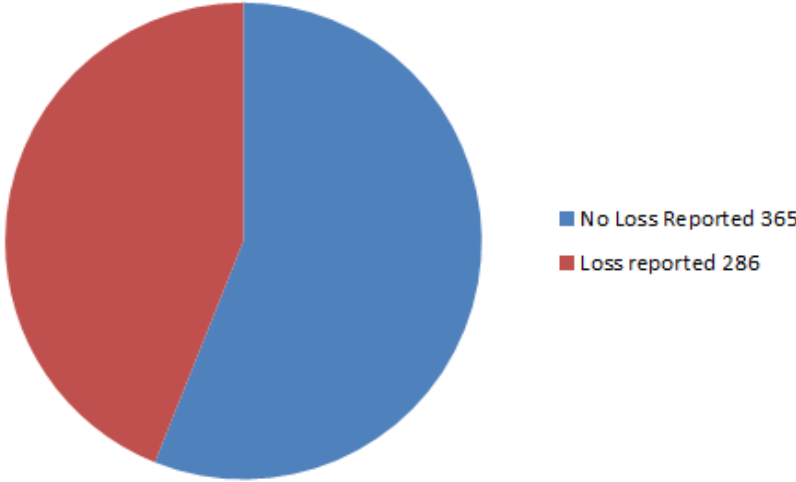
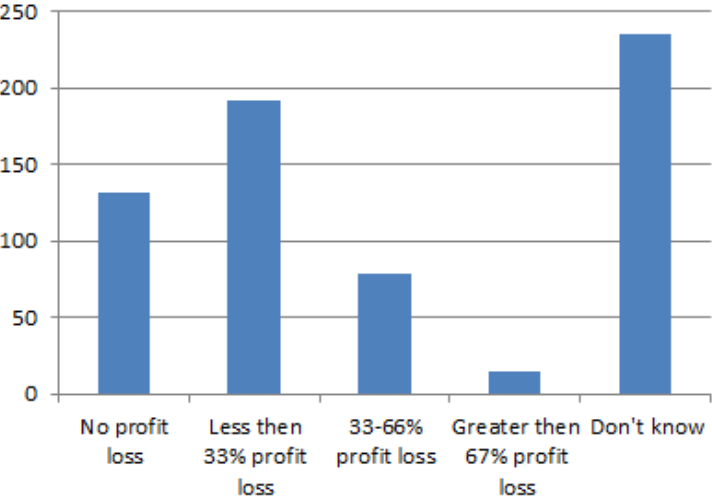
A. Apple	2010	2011	no damage yet
B. Peach	2010	2011	no damage yet
C. Plum	2010	2011	no damage yet
D. Grape	2010	2011	no damage yet
E. Brambles	2010	2011	no damage yet
F. Cherries	2010	2011	no damage yet
G. Other tree fruit	2010	2011	no damage yet
H. Peppers	2010	2011	no damage yet
I. Tomatoes	2010	2011	no damage yet
J. Corn: Sweet or Field	2010	2011	no damage yet
K. Okra	2010	2011	no damage yet
L. Green Beans	2010	2011	no damage yet
M. Soy bean	2010	2011	no damage yet
N. Cotton	2010	2011	no damage yet
O. Walnuts	2010	2011	no damage yet
P Ornamental Trees and Shrubs	2010	2011	no damage yet
Q. Other _____	2010	2011	no damage yet

Question 6



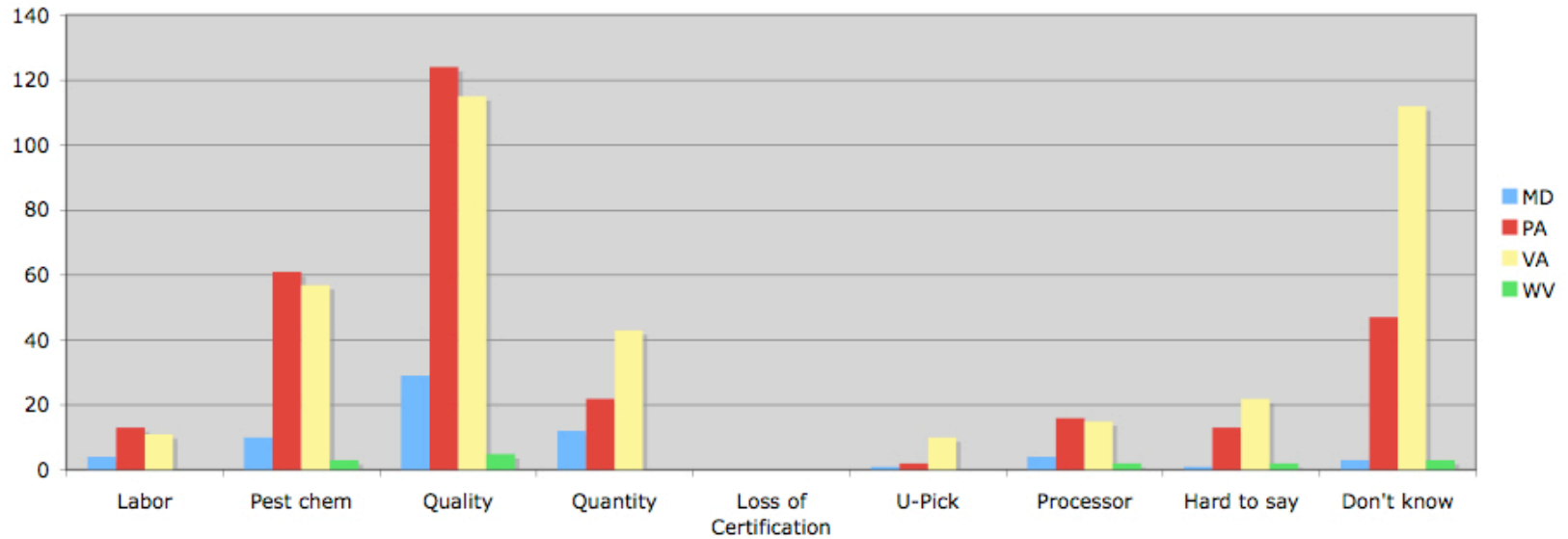
7. Approximately how much did BMSB decrease your profit for your crop? Consider increased labor and pest control costs AND loss of quality and product. If you grow more than one crop, please answer with respect to the crop that had the most BMSB damage?

- A. No loss in profit for that crop
- B. Less than 33% loss in profit
- C. 33-66% loss in profit
- D. More than 67% loss in profit for that crop
- E. Don't know or can't say



Which was the area that contributed to the most loss:

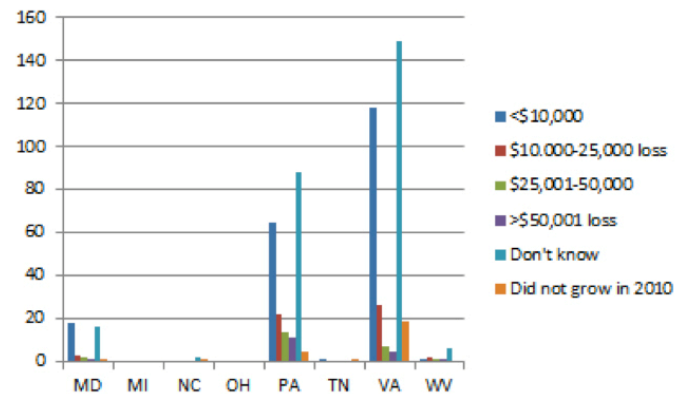
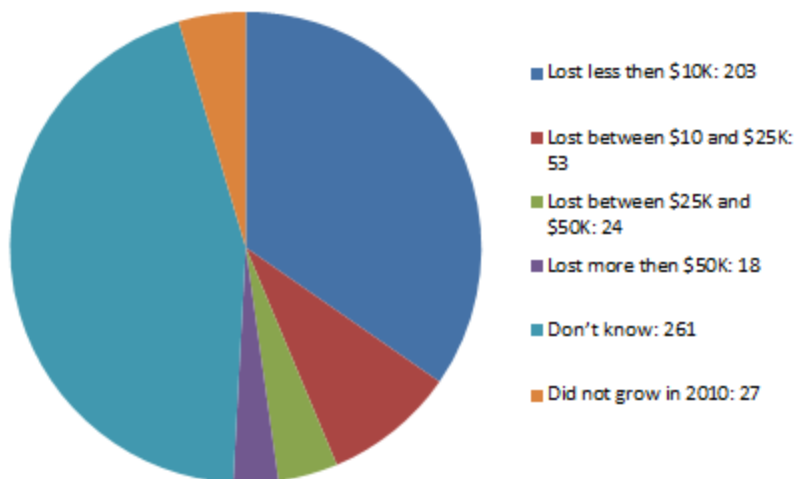
1. Labor
2. Pest control expenses including chemicals and fuel
3. Quality of harvest
4. Amount of harvest
5. Loss of Certification
6. Lost money on U-Pick
7. Loss money from sale after harvest (processor or elevator)
8. Hard to say, but lost money
9. Do not know



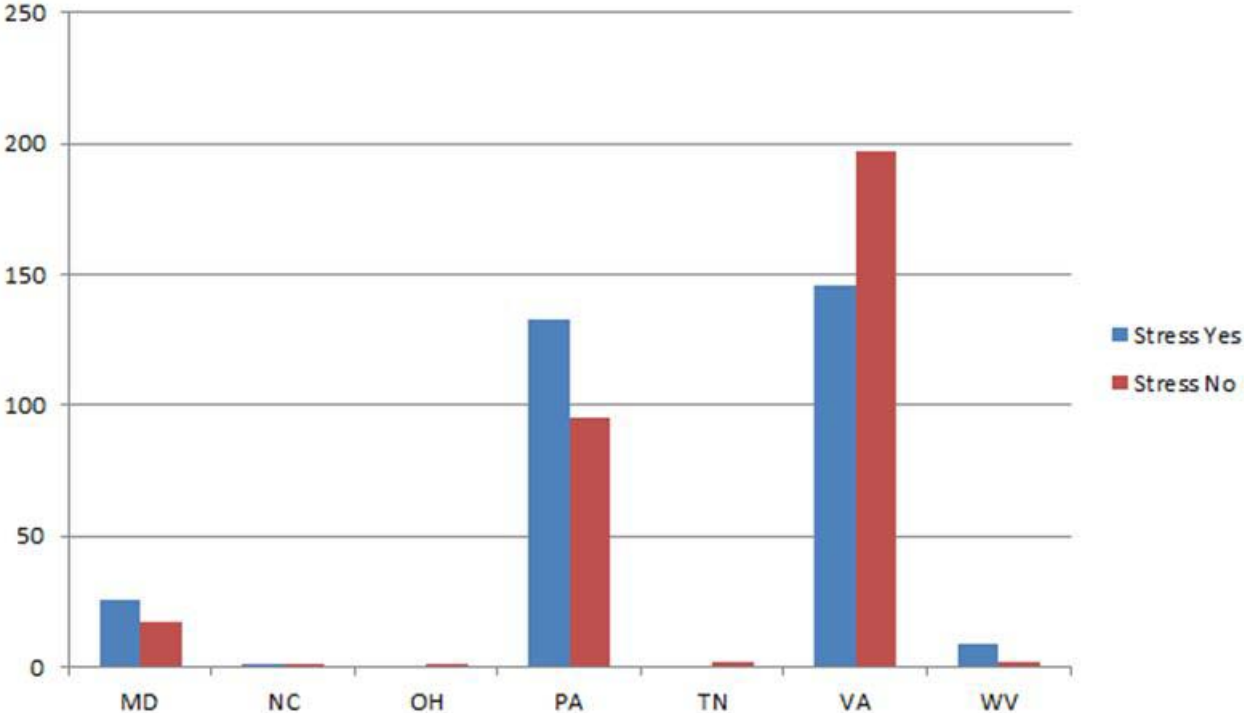
8. How does your loss in this crop translate to dollars?

- A. Loss was less than \$10,000
- B. \$10,000-25,000
- C. \$25,001-\$50,000
- D. Loss was greater than \$50,001
- E. Don't know or can't say
- F. Did not grow crops in 2010

298 or 51% of the 586 respondents reported a loss



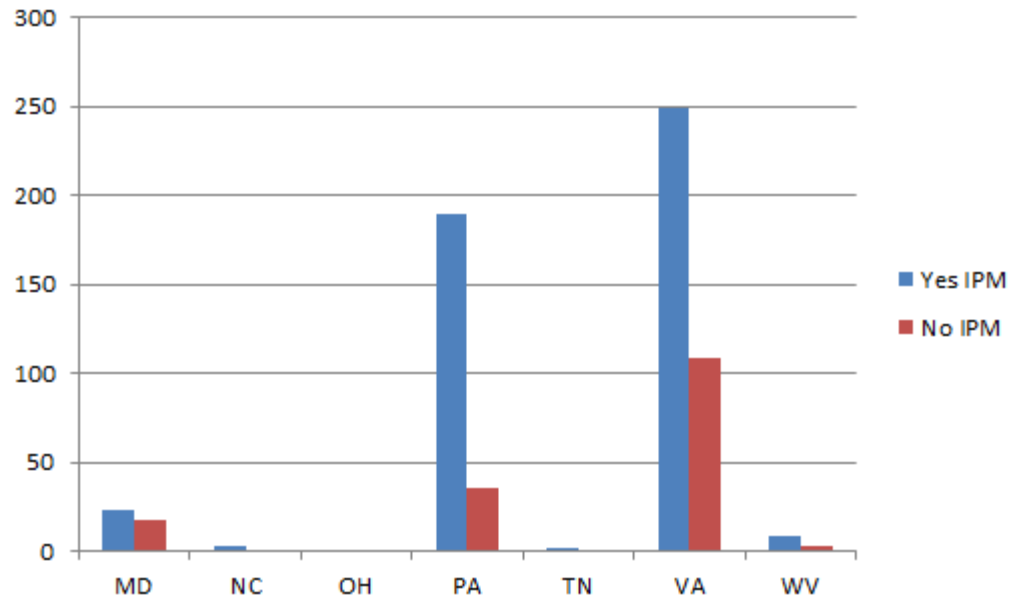
9. Did having to deal with BMSB cause you to become stressed? Yes ____ No ____



10. Do you practice Integrated Pest Management (IPM)?

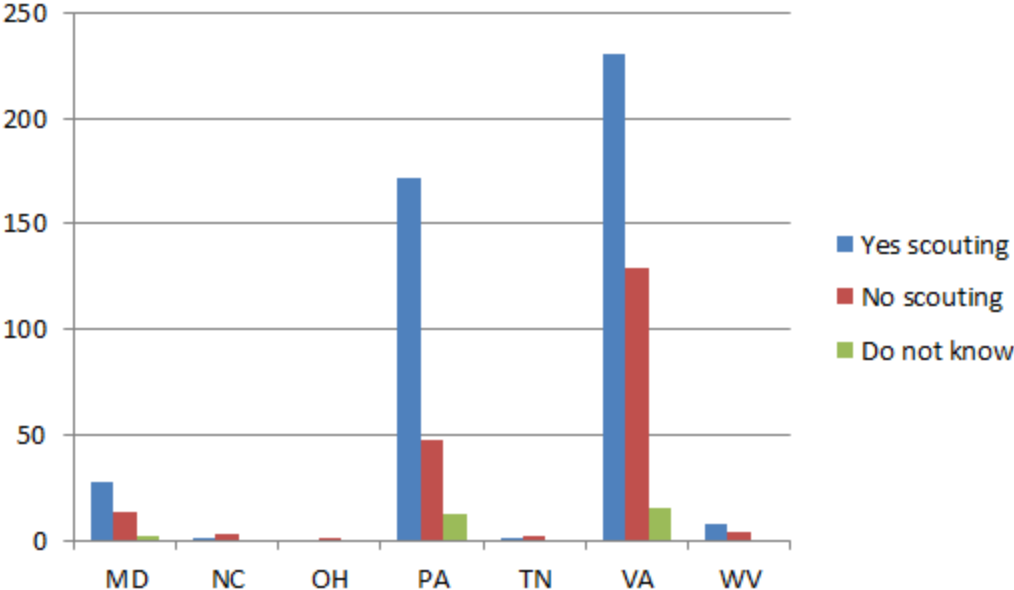
A. Yes

B. No



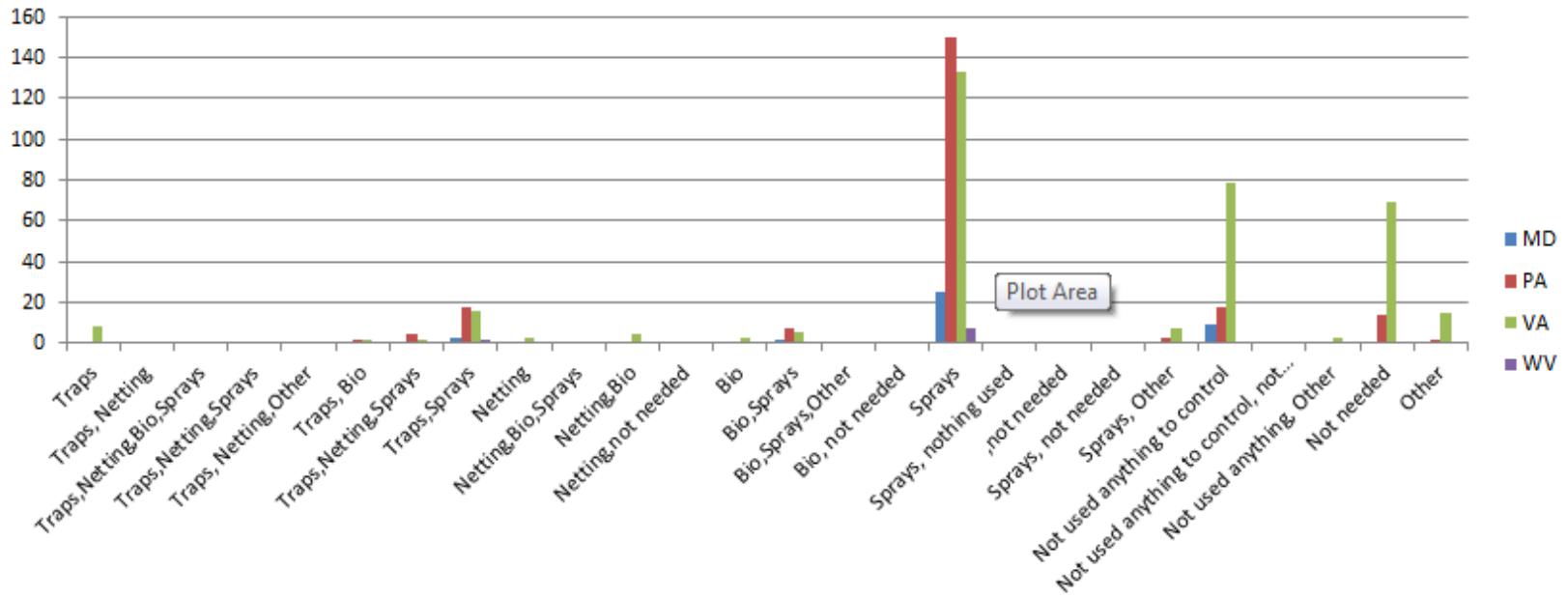
11. Do you, or someone else scout regularly for BMSB?

- A. Yes
- B. No
- C. Do not know



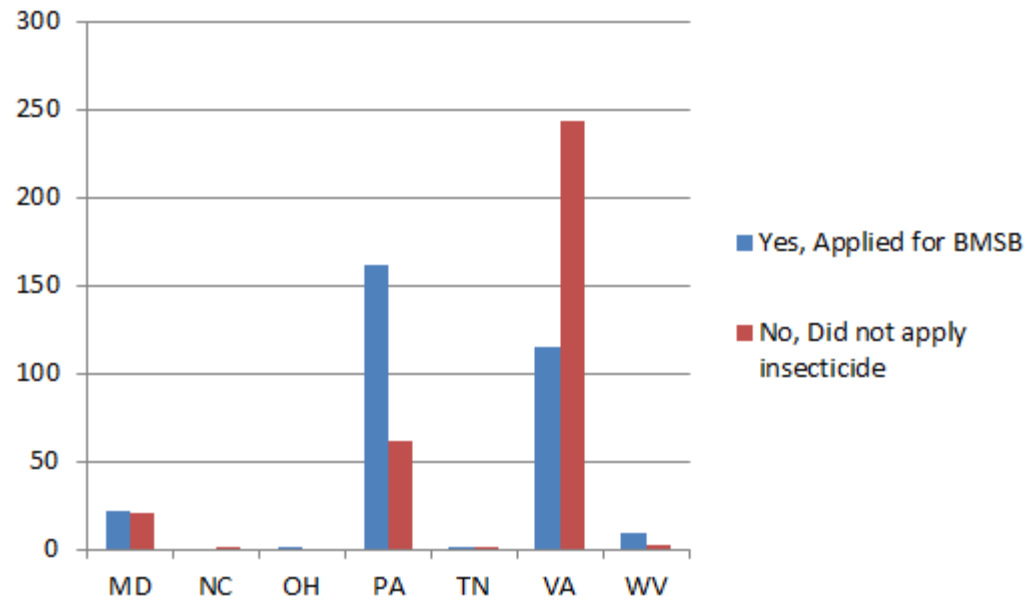
12. Which tactics have you used to control BMSB? (Select all that apply)

- A. Traps
- B. Netting
- C. Biological controls
- D. Sprays
- E. Have not used anything yet to control BMSB – but have BMSB
- F. Have not needed to control BMSB
- G. Other: _____



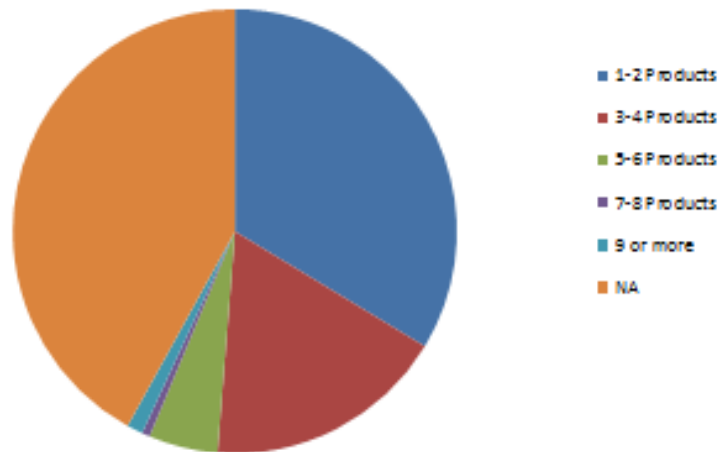
13. Have you or someone on your farm sprayed an insecticide specifically targeted to BMSB?

- A. Yes
- B. No
- C. I do not work on a farm

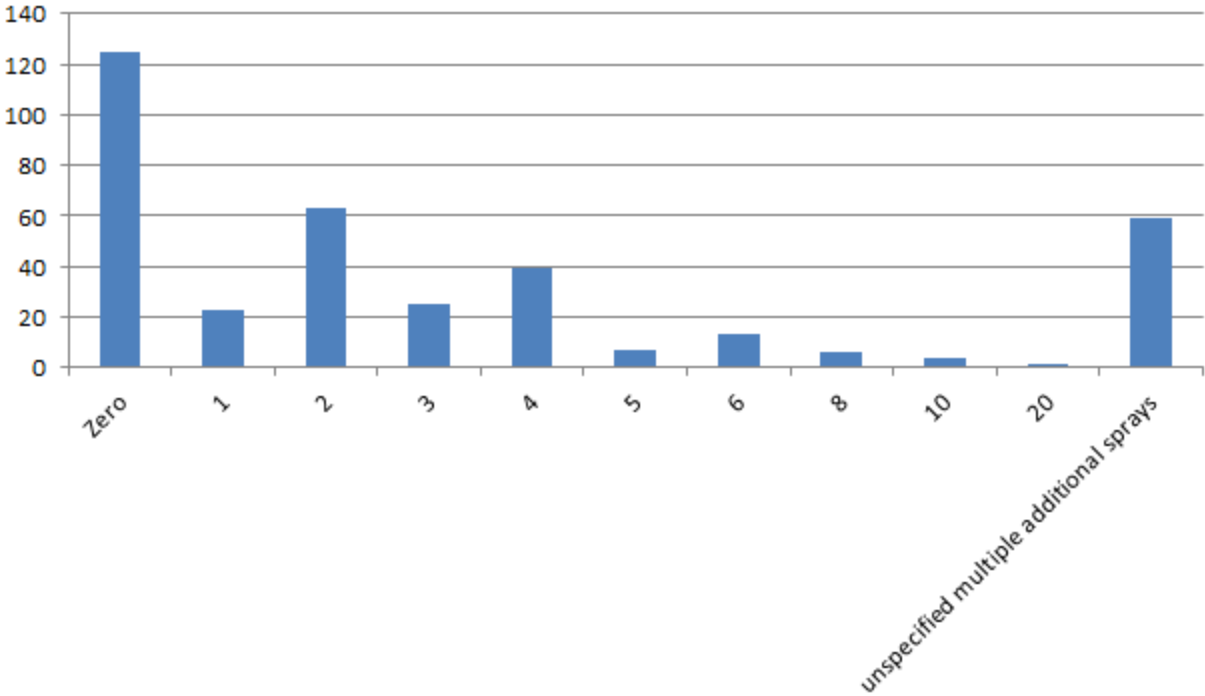


14. If yes, how many additional insecticide products were added to the regular spray schedule to control BMSB? (Consider each product in a tank mix as a separate product.)

- A. 1-2
- B. 3-4
- C. 5-6
- D. 7-8
- E. 9 or more
- F. NA

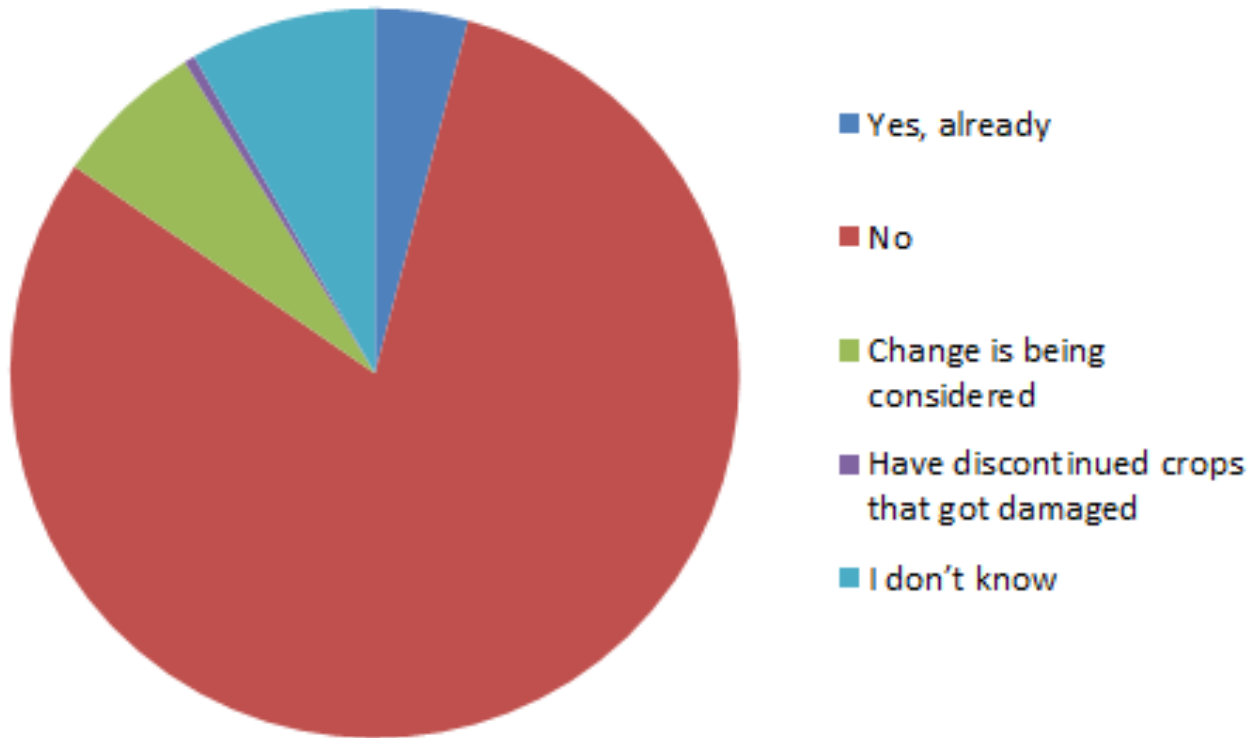


15. How many additional times were pesticides sprayed on your crop for BMSB in the most recent season, regardless of the number of products in the tank?



16. Has there been a change in what crops are grown in response to BMSB pressure?

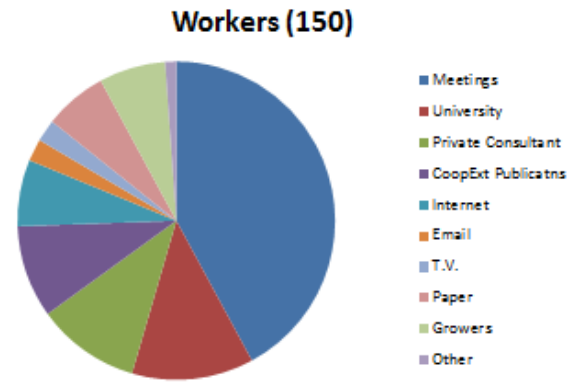
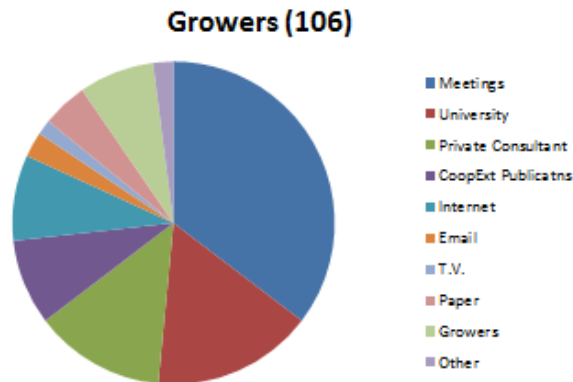
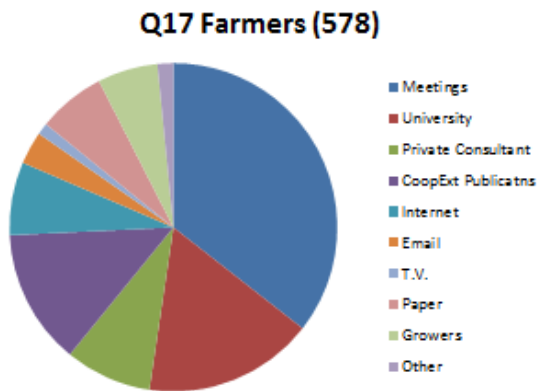
- A. YES, already
- B. NO
- C. Change is being considered for future crops
- D. Have discontinued growing crops that got damaged
- E. I do not know



E. PREFERENCES FOR GETTING INFORMATION

17. Of the following choices, where have you received the best BMSB information?

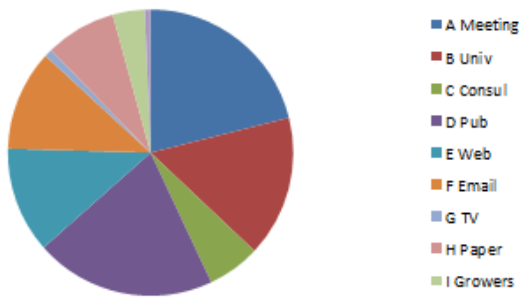
- A. This meeting, or similar in-person meetings
- B. University personnel (extension educators)
- C. Private consultants
- D. Cooperative Extension Office pamphlets, publications
- E. Internet / websites
- F. Email and email lists
- G. T.V.
- H. Newspapers and grower magazines
- I. Growers
- J. Other: _____



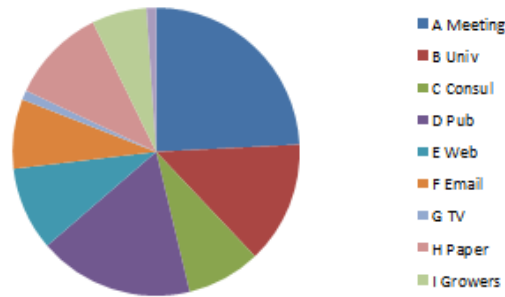
18. Of the following choices, how would you prefer to receive information about BMSB? (Select top three)

- A. In-person meetings
- B. University personnel (extension educators)
- C. Private consultants
- D. Cooperative Extension Office pamphlets, publications
- E. Internet / websites
- F. Email and email lists
- G. T.V.
- H. Newspapers and grower magazines
- I. Growers
- J. Other: _____

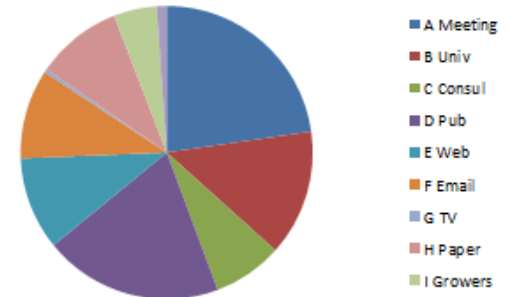
Farmer (579)



Worker (150)



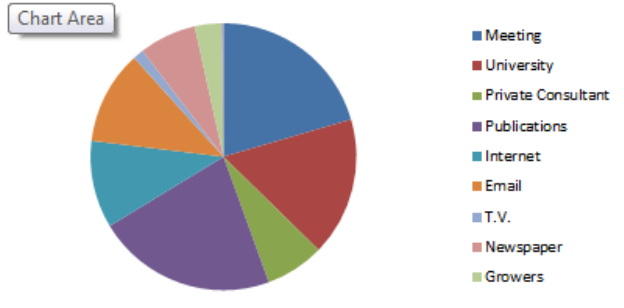
Manager (106)



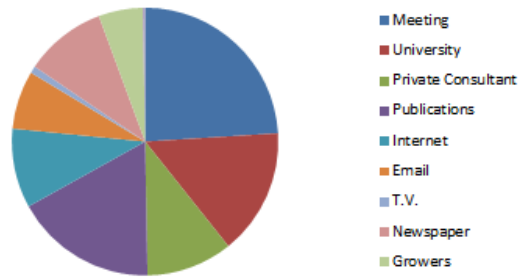
19. How do you prefer to receive information about IPM tactics for BMSB? (Select top three)

- A. In-person meetings
- B. University personnel (extension educators)
- C. Private consultants
- D. Cooperative Extension Office pamphlets, publications
- E. Internet / websites
- F. Email and email lists
- G. T.V.
- H. Newspapers and grower magazines
- I. Growers
- J. Other: _____

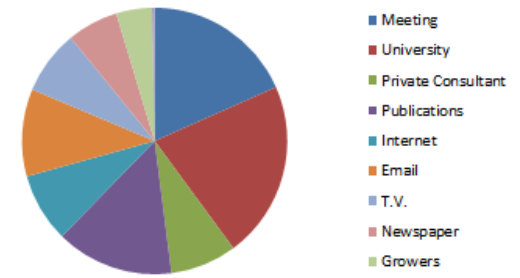
Q 19 Farmer (582)



Q 19 Worker (150)



Q 19 Manager (110)



20. What kind of BMSB information do you need most? (Please select all that apply)

- A. BMSB biology and behavior
- B. Scouting (how to sample)
- C. Trapping (how to)
- D. Location of the beast (who's finding it)
- E. Insecticides (what to spray; how to spray)
- F. Nonchemical methods
- G. Organic methods
- H. Other: _____

