Mississippi Deer Damage Survey

Mississippi row crop producers face many economic challenges every year. One issue that is becoming increasingly more common is the impact of deer on crop yields. While crop insurance does help cover some of the losses incurred from deer damage, it does not always show the full impact of producer losses. To help determine the extent of the issue, the Mississippi State Extension Service and Department of Agricultural Economics conducted a survey of Mississippi producers on the deer damage they have experienced on their farm. The following is a summary of the results from that survey, focusing primarily on corn, cotton, and soybeans.

In total there were 207 responses, however many of the responses did not answer all of the questions in the survey. Producers were asked how many acres of crops they planted, the number of acres that were impacted, and their estimated yield loss. Producers reported yield losses in 12 different crops with the majority of losses coming in corn, cotton, and soybeans. Additionally, producers were asked if any acres had to be replanted and the costs of the replant. The responses were then used to calculate an economic loss. The economic loss was calculated by multiplying the yield loss by the respective crops latest 2024 marketing year average price and the acres impacted and then adding the replanting costs. Marketing year average prices used were $4.35/bu for corn, $10.10/bu for soybeans, and $0.635/lb for cotton. Of the surveys that had all the economic damage information filled out, 13 respondents reported damages in corn, 21 reported damages in cotton, and 90 reported damages in soybeans. Respondents reported damage occurring in 45 different counties in Mississippi.

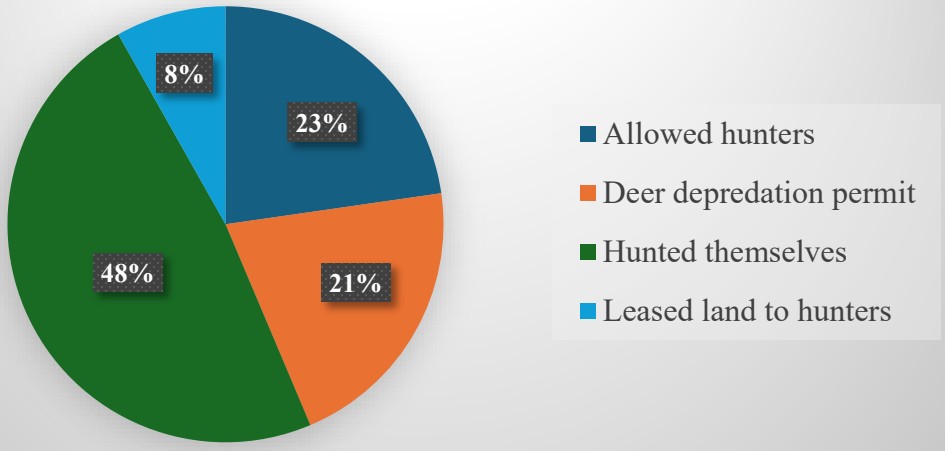
For corn, cotton, and soybeans, 17,830 total acres were reported to be affected by deer damage with a total economic impact of $4.6 million (Table 1). The acres damaged accounted for 17% of the total acres planted by the respondents. Soybeans were by far the most impacted with 90 respondents reporting damages on 14,204 acres of which 4,013 acres of soybeans had to be replanted. Total economic loss for soybeans was $3.68 million or $258.91/ac. Cotton had the second most acres impacted at 2,066 acres and with 597 acres being replanted. Total economic loss for cotton was $640,733 or $310.21/ac. Lastly, producers reported 1,561 acres of corn damaged with 171 acres of replant. Economic loss for corn was $294,109 or $188.46/ac.

Table 1. Reported Economic Loss Due to Deer Damage for Mississippi

Item	Corn	Cotton	Soybeans
Respondents	13	21	90
Acres Planted	9,222	9,507	84,243
Acres Damaged	1,561	2,066	14,204
Acres Replanted	171	597	4,013
Average Yield Loss	38 bu/ac	416 lbs/ac	24 bu/ac
Total Economic Loss	$294,109.90	$640,732.63	$3,677,496.10
Average Loss Per Acre	$188.46	$310.21	$258.91
Average Loss Per Respondent	$22,623.84	$30,511.08	$40,861.07

Producers were also asked a series of questions on what actions they took to reduce deer damage on their land. The most common method used to control deer was to hunt themselves at 48% of respondents. This was followed by allowing other hunters on the land, 23%, and securing a deer depredation permit, 21% (Figure 1).

Figure 1. Action Taken to Reduce Deer Damage



These results do not show the full impact of deer damage in Mississippi since not all producers filled out the survey. The damages could be higher than what is reported here. Also, producers who were more severely affected by deer damage would be more likely to fill out the survey as well. The economic loss also depends on the year, and if crop prices were higher the economic loss would be greater. Furthermore, there are other costs outside of yield and replant that likely impact producers from this issue, such as not planting the desired/most profitable crop. But based on the results of the survey, deer damage is a significant issue in Mississippi and this could provide a starting point on further research into this issue.

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