

2008 Grape Loss Survey Report

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Background

The Institute for Continental Climate Viticulture and Enology (ICCVE) was requested by the Missouri Wine and Grape Board (MWGB) to survey Missouri grape growers to determine the extent of crop loss during the 2008 season. A draft survey document was developed by R.K. Striegler, R.A. Allen, and E.A. Bergmeier. The draft survey document was sent to MWGB members and MWGB Research Committee members for review. The survey document was revised based upon input received. A copy of the final survey document is attached. Surveys were mailed to members of the Missouri Grape Growers Association, Missouri wineries, and the ICCVE Missouri grape growers' mailing list during the week of December 22, 2008. Growers were asked to return the survey by January 30, 2009.

Response to Survey

Responses to the survey are characterized as listed below:

- 76 surveys received
- Total bearing vineyard acres reported 800
 - This represents 57% of the 1400 MO vineyard acres. (NASS, 2008)

Survey Results

Grape acreage, production, and reported loss data are presented in Table 1. Survey responses represent 800 bearing vineyard acres. Approximately 68% of growers responding to the survey indicated they suffered crop loss in 2008. The amount of crop loss was estimated to be 256 tons. This represents a 9.4% loss based upon the information reported by responding growers. The adoption of cutting edge vineyard technology may be influenced by vineyard size (Noguera et al., 2005). We decided to examine whether vineyard size had an influence on percentage of crop loss, however, large differences were not apparent from our survey results. This was viewed as potentially important information due to the influence it might have on future extension/research efforts. Figure 1 breaks the survey responses down by vineyard size category and shows the percentage of reported acreage represented by each category. It is important to note that 53% of reported acreage is from only 4 growers.

The factors responsible for crop loss are provided in Table 2. The 2008 season was characterized by a cooler and wetter spring than average which delayed the start of the growing season. This was further impacted by above average rainfall throughout the season and overcast days which delayed harvest of several cultivars. A large portion, 34%, of losses reported were

attributed to disease. The factor accounting for the second highest level of reported loss was categorized as other/unknown (23%) and was attributed in large part to hail and excessive water. Other significant causes of reported loss were carry over freeze damage from the 2007 season (17.6%), vertebrate pests (16.8%), and insects (4.3%).

The MWGB also asked that certain additional information be collected as part of the survey. This information is presented in Table 3. Growers were asked to report if they sold fruit to out-of-state processors and if they had fruit they were unable to sell. Out-of-state sales were reported by 9% of growers responding to the survey. Growers reported being unable to sell 41.5 tons of their crops primarily due to disease, poor quality, and oversupply.

References

Noguera, E., Morris, J., Striegler, K., and Thomsen, M. 2005. Production Budgets for Arkansas Wine and Juice Grapes. Arkansas Agricultural Experiment Station Research Report 976.

USDA, National Agricultural Statistics Service (NASS). 2008. Missouri grape facts. http://www.nass.usda.gov/Statistics_by_State/Missouri/Publications/Brochures/Grape_Facts.pdf

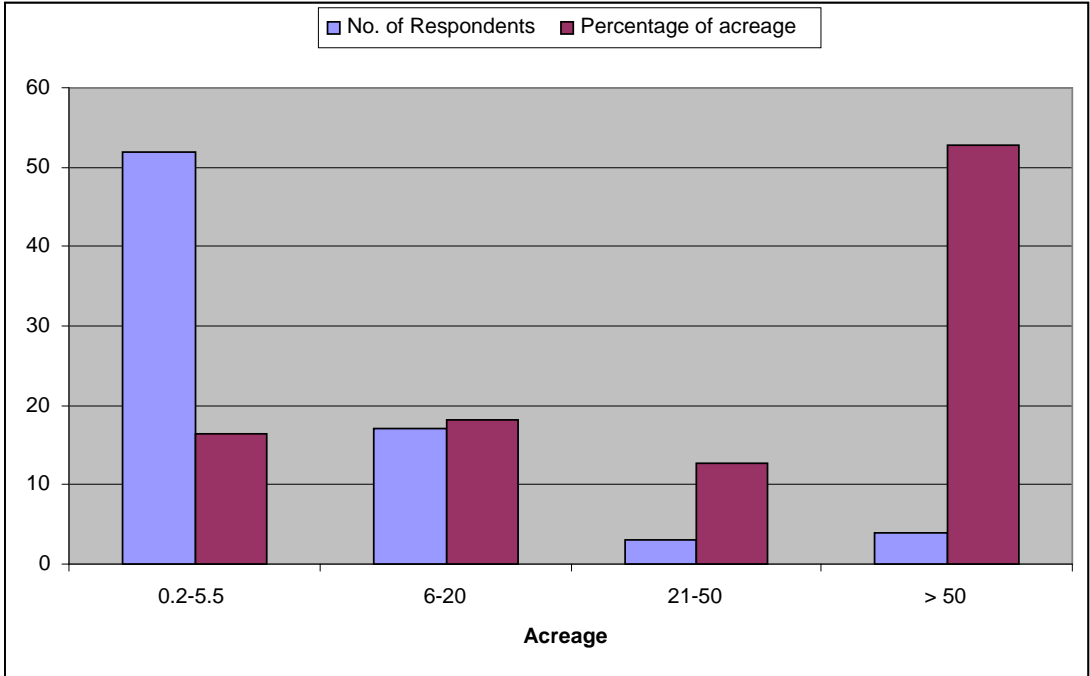


Figure 1 Number of respondents by vineyard acreage category and percentage of acreage within each. The value above the lighter bars represent the number of respondents within that acreage category while the value above the darker bars represents the percentage of acreage corresponding to each acreage category.

Table 1. Grape acreage, production, and reported loss. 2008.

Reported acreage	800
Percent of growers reporting crop loss	68
Grape tons harvested	2731
Grape tons lost	256
Total grape tons produced (projected)	2987
Loss - percentage of total production	9.4

Table 2. Reported cause of grape loss. 2008.

Cause	Tons Lost	Percent of Total Grape Loss
Heat/Drought	0.5	0.2
Freeze/Frost	45	17.6
Disease	87	34.0
Insect	11	4.3
Bird, deer, etc.	43	16.8
Other/Unknown	59	23.0
NR	10.5	4.1

Table 3. Additional information from growers responding to survey. 2007.

Percentage of growers who sold to non-MO processors	9
Percentage of growers with unmarketable crop	16
Percentage of growers choosing not to harvest	3