Hay handling and hauling trends

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Having spent a substantial portion of my youth hauling hay, I am constantly amazed by the advances in hay handling and hauling. To get a sense of the diversity with which hay is handled and hauled currently, I recently conducted a brief informal survey of commercial hay producers that participate in a couple of Facebook groups dedicated to the interest of these growers (“Hay Kings,” 15,000-plus members and “Hay Growers and Custom Operators,” 10,000-plus members).

Demographics
The survey ran for four days, and 125 responses were received from 42 locations across the U.S. and two in Canada (Figure 1). Respondents were approximately evenly split into, primarily, producers of cool-season grass (30 percent), warm-season grass (23 percent), alfalfa (23 percent) and grass-legume mixed hay (21 percent), with 3 percent reporting other species as their primary hay crops. The respondents varied considerably in the size of their commercial hay operations, as evidenced by the typical number of square bales they handle on a given day of hay-making (Figure 2).

Making hay on smaller tracts of land is much more common in the eastern U.S. compared to the Western states and Canada. Though the sample size of respondents was too small to say conclusively, Western hay growers generally were able to handle twice as many bales per day as Eastern hay growers. This is largely the result of more extensive use of labor-saving hay handling and hauling systems.

Methods of handling bales
There is a large diversity in the methods used to handle square bales out of the field (Figure 3). Overall, approximately two-thirds of the
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Bale sizes and dimensions
All but one of the respondents were predominantly making two-string square bales (14 inches by 18 inches) with bale lengths varying from 30 to 40 inches. On average, two-string bales weighed 55.5 pounds per bale with a density of 9.7 plus or minus 0.5 pound per cubic foot of bale on an “as-fed” basis. Over 70 percent of the respondents indicated their bales were 40 to 60 pounds per bale. However, about 5 percent of the respondents reported bales weighing 80 pounds or more, with one of those making three-string bales.

Selling by the bale or by the ton
This wide range in bale weights complicates the age-old question of whether to buy or sell hay by the bale or by the ton. Over 75 percent indicated they predominantly sell hay by the bale, while around 12 percent usually sell by the ton, with the remainder selling about the same by the ton as they do by the bale. On this issue, there was a disparity among the eastern and western U.S. growers. Of those west of Interstates 29 and 35, all the growers said they sell hay exclusively by the ton. In contrast, there was only one grower east of that line who said they sold hay exclusively by the ton. Over 75 percent usually sell by the ton, with the remainder selling about the same by the ton as they do by the bale.

Hauling square bales
Eighty percent of those responding indicated they frequently haul or load flatbed trailers with their square bales. On average, these growers indicated they average just over 10 bales per foot of trailer length. Just under half of the respondents indicated they load 53-foot semi-truck trailers for hauling hay long distances. Those making two-string bales under 60 pounds per bale use 525 to 756 bales to make a load, for an average weight per load of nearly 32,000 pounds. By hauling these smaller bales, one might be able to fill more than 95 percent of the 4,054.5 cubic feet in the interior of a standard 53-foot van. However, these smaller bales are lighter and result in a load far below the 45,000-pounds-per-load limit for cargo in most states. Though this is a small survey, perhaps it will provide a reasonable benchmark by which we can assess changes in the industry over the next 20 years.

If you’d like to weigh in with your answers, go to goo.gl/forms/2qChyqV1300ReQGf2 to take the survey.