

AN OAT BY ANY OTHER COLOR: Consumer and Equine Oat Color Preference

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Oat (*Avena sativa*) is used for human and horse consumption and other animal feed. Currently the market for equine feed prefers white hulled oats that have a high test weight. These oats are generally sold at a premium to race horse owners who compete with mills for the highest quality oats. Breeding programs in the Midwest produce both white and yellow hulled oats that meet test weight and plump standards for both equine and human markets. However, there appears to be a human market preference for whited hulled oats even though the hull is removed before processing oats for human consumption. The perception for this market preference, is that horse owners and managers are demanding white oats. This two-part study was conducted to determine if horse owners/managers or the horses had a preference for a specific hull color. For the first-part, we administered a 13-question survey regarding oat use and preference among horse owners and managers for 6-weeks through the University of Minnesota Horse Extension Team Facebook page. Survey questions focused on owner demographics, horse feed preferences, and oat feed preferences. The 801 respondents to the survey did not have a significant visual preference for white or yellow oats. The most important quality indicated for selecting oats was cleanliness (free of contaminants) with color and test weight being the least important. The second-part consisted of two horse feeding trials. Six adult, stock-type horses were fed a mixture of oats of two different hull colors (white and yellow) over 20 non-consecutive days. The samples of each colored oat were blended from two varieties so that the end color mixture contained similar test weight, oil, protein, and beta-glucan concentrations. Horses expressed a preference of yellow hulled oats over white ($P < 0.0001$). Horses do not perceive color the same way humans do and might be selecting yellow over white due to another sense such as smell or taste. Further investigation into what biochemicals are driving the selection would be of interest to the animal feed market, and oat breeding programs.