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Harvesting, Storing, and Feeding of Oat

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The proper harvesting, storing, and use of oat (Avena sativa L.), whether for animal feed or human food, are the final steps in profitable oat production and utilization. While preharvest management practices are crucial to obtaining maximum economic grain or forage yields, good harvest and postharvest management practices are essential to protect and obtain the potential economic gain from those yields. Grain losses caused by untimely harvesting, poor harvesting techniques, improper handling, improper storage, or some combination of these practices, all diminish the economic value of a crop that already is a relatively low producer of total digestible nutrients (TDN) per hectare compared to most other grain crops. Similarly, timely harvest and proper storage of oat for forage is essential to obtaining the most valuable combination of yield and quality.

Most of the oat grain produced in North America is used as feed for various classes of livestock on the farms where it is produced, and variable amounts are used for manufacturing commercial feeds. Compared to other feed grains, covered oat grain is low in TDN because the groat (caryopsis) is covered by a hull that is low in nutritional value and usually constitutes one-fourth to one-third of the grain weight. The primary use of oat grain is in maintenance rations for lactating dairy cattle, beef cattle, and horses. Oat grain also is commonly used in the rations of young cattle, poultry, and swine since the protein concentration and quality is superior to the other common feed grains. Oat groats are particularly useful in the diets of these animals because, in addition to even higher concentrations of protein, TDN is similar to that of corn (Zea mays L.). These desirable characteristics of oat groats