

## 9. PEANUTS

Waterbird use of agricultural land planted to peanuts (*Arachis hypogaea*) appears to be extremely rare, and the consumption of peanuts may even be harmful to most species. Peanuts are grown in three main regions in the U.S.: in the eastern states of Virginia, North Carolina, and South Carolina; in the southeastern states of Georgia, Florida, Alabama; and in the southwestern states of Texas, Oklahoma, and New Mexico (Acquaah 2005; Figure 9-1). Although peanuts are grown in Asia, Africa, Australia, and the Americas (Acquaah 2005), our worldwide search for documented cases of waterbird use of peanut fields yielded only two references in the literature, both in North America, and both pertaining to use by only one species – the Sandhill Crane – during the nonbreeding season.

### USE BY WATERBIRDS

In western Texas (WWL focal region **Shortgrass Prairie**, BCR 18), Sandhill Cranes commonly consume waste peanuts during winter (Windingstad 1988), and in northern Florida (BCR 31), radio-tagged cranes have been observed using peanut fields during winter and spring, but use was only in proportion to the availability of agricultural habitat across the landscape (Nesbitt and Williams 1990). Sandhill Cranes are considered a “Conservation Priority Species” by the National Audubon Society as certain populations are listed under the Endangered Species Act. Although the value of peanut farming to cranes is not known, it is probably not large. The negative effects of this crop on cranes, however, may be serious enough to impact populations (see below).

### RESOURCES

Although waste peanuts are the only resource that any waterbird species has been documented to consume in peanut fields, ingestion of peanuts presents a risk of mycotoxin poisoning (Windingstad 1988). Mycotoxins are toxic substances produced by a fungus under special conditions of moisture and temperature, and can be found on waste peanuts. Windingstad (1988) documented recurrent large-scale die-offs (as many as 5,000 birds on one occasion) of wintering Sandhill Cranes in Texas, and invoked mycotoxicosis from the ingestion of peanuts as the cause. Other potential resources in peanut fields include terrestrial invertebrates and the new shoots and seeds of weed species, but the use and importance of these to waterbirds has not been documented.

### EFFECTS OF PEANUT PRODUCTION METHODS

To the best of our knowledge, the effects of peanut crop production methods on waterbirds have not been studied. Given the low value of this crop to waterbirds, however, any focus on the impacts of peanut production practices is probably not warranted.

### SUMMARY AND SYNTHESIS

#### Knowledge Gaps and Research Needs

Based on current knowledge, there appears to be only one research question regarding waterbird use of peanut fields that merits further research. Documenting the extent to which Sandhill Cranes or any other waterbird species forage on waste peanuts in peanut-growing regions outside of Texas would provide a basis for examining the risk of mycotoxin poisoning, and the degree to which this may be a serious threat, especially to Conservation Priority Species. If this threat is

serious, further research into ways to minimize the harmful effects of mycotoxin poisoning (e.g., by developing ways to discourage vulnerable species from using peanut fields) would be warranted.

## **References**

- Acquaah, G. 2005. *Principles of Crop Production: Theory, Techniques, and Technology*. Pearson Education, Upper Saddle River, New Jersey.
- Nesbitt, S. A., and K. S. Williams. 1990. Home range and habitat use of Florida Sandhill Cranes. *Journal of Wildlife Management* **54**:92-96.
- Windingstad, R. M. 1988. Nonhunting mortality in Sandhill Cranes. *Journal of Wildlife Management* **52**:260-263.

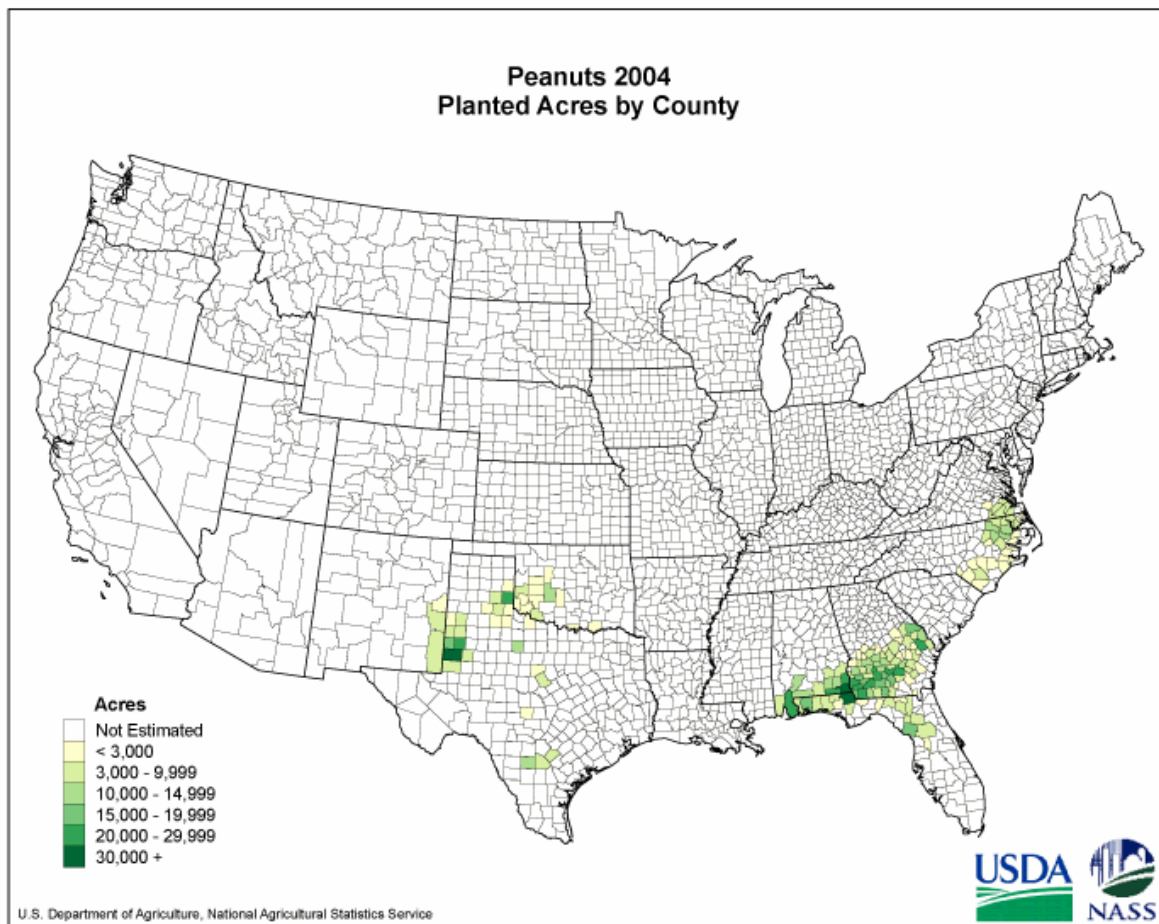


Figure 9-1. Map of the distribution of peanuts planted in the United States during 2004, the most recent year for which data are available. From the United States Department of Agriculture National Agricultural Statistics Service (<http://www.usda.gov/nass/aggraphs/cropmap.htm>; accessed 2 Jan 2007).