

**For Immediate Release**  
**U.S. Poultry & Egg Association**  
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### **Researchers Evaluate the Effects of Artificial Turf and a Manure Removal System in Cage Free Systems**

USPOULTRY and the USPOULTRY Foundation announce the completion of a funded research project at the Purdue University Department of Animal Sciences in which researchers evaluated the effects of artificial turf and a manure removal system in cage free systems. The research was made possible in part by MPS Egg Farms and proceeds from the International Poultry Expo, part of International Production & Processing Expo (IPPE). The research is part of the Association's comprehensive research program encompassing all phases of poultry and egg production and processing. A summary of the completed project is below.

### **Project #712: Improving Cage Free Air Quality, Hen Welfare and Egg Quality with Artificial Turf and a Manure Removal System**

(Dr. Marisa Erasmus, Purdue University Department of Animal Sciences, West Lafayette, Ind.)

Dr. Marisa Erasmus, associate professor at Purdue University Department of Animal Sciences, and colleagues recently completed a research project with specific objectives that included determining whether early experience with artificial turf improves hens' use of the floor area and evaluating the effects of artificial turf and a manure removal system on air quality, external egg quality, and hen welfare and productivity in an aviary-style system. Results from this study indicated that floor substrate influences hen welfare parameters during rearing and during lay, and the influence on welfare depends on the age at which welfare is assessed as well as the genetic line of bird. The use of AstroTurf reduced ammonia levels in cage free housing, was associated with dirtier eggs and fewer floor eggs, and influenced some hen behavior. AstroTurf may be an acceptable alternative to shavings in cage free housing, but further work is needed to fully examine the implications for hen behavior at older ages.

The research [summary](#) can be found on the USPOULTRY website. Information on other Association research may also be obtained by visiting the USPOULTRY website, [www.uspoultry.org](http://www.uspoultry.org).

### **About USPOULTRY**

U.S. Poultry & Egg Association (USPOULTRY) is the All Feather Association progressively serving its poultry and egg members through research, education, communications and technical services. Founded in 1947, USPOULTRY is based in Tucker, Georgia.