TEXAS A&M AGRILIFE EXTENSION

FY 2014 & FY 2015 Exceptional Item

Appropriated Amount (biennial):
$2 Million

REVERSING THE DECLINE OF QUAIL IN TEXAS

OBJECTIVE
Reverse the critical quail decline in Texas through education and research focused on landscape improvements to increase quail populations and through investigations into diverse factors that interact to cause quail decline.

Benefit to Texans

Based on the number of hunters, quail is the third-most-hunted game species in Texas, ranking only behind deer and dove. The economic impact of hunting in Texas exceeds $1.5 billion annually, with 65 percent of hunter expenditures made in rural counties. However, recent studies by AgriLife Extension indicate that approximately 65 percent of Texas hunters come from urban areas. Therefore, the decline in quail numbers not only threatens the livelihood of rural Texans but also reduces popular hunting opportunities for many urban residents. By restoring healthy quail populations in Texas, AgriLife Extension and AgriLife Research will restore the ecosystem balance that helps quail to thrive and will also maintain the economic and recreational benefits of quail hunting in the state.

Description and Justification

Texas populations of Northern Bobwhite and scaled, or “blue,” quail have declined for decades, with an acute decline and record low populations since 2008. It is alarming that recent declines in quail abundance have continued even in apparently suitable habitat during favorable weather conditions. If this decline continues, wild quail could face local and even statewide extinction. Such a threat requires changes in Texas landscapes to improve quail habitat and minimize new threats from disease, predation, and invasive species.

This exceptional item will support integrated approaches by the Texas A&M AgriLife Extension Service, collaborating with Texas A&M AgriLife Research, to marshal the resources of The Texas A&M University System to address quail decline.

Funding will launch education and research efforts to develop the following:

- Educational resources and programs specific to reestablishment and growth of quail populations based on new and existing research-proven best management practices.
- Investigations into the impact on quail of parasites harbored by insects, mycotoxins (e.g. aflatoxin-contaminated deer corn), and predation and habitat destruction by invasive species such as feral hogs and fire ants.
- Rapid, nonlethal diagnostic tests for diseases in quail.
- Genomic sequencing and bioinformatics to identify resistance to diseases and other beneficial traits in individual quail and in quail populations.
- Field tests using radio-tagged birds and quail counts to study how health factors interact with environmental factors to affect wild quail survival and demographics.
- A centralized data repository of the information collected from each quail and each field site, genomics data, quail counts, and related information. This data will be used to rapidly test hypotheses on how diverse factors interact to cause quail decline.

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MEMBER OF THE TEXAS A&M UNIVERSITY SYSTEM

About Texas A&M AgriLife

What is AgriLife? It's a simple word for a diverse organization. With teaching, research, extension education, laboratory, and forestry facilities throughout Texas, we serve people of all ages and backgrounds. Led by Vice Chancellor Dr. Mark A. Hussey, Texas A&M AgriLife includes the Texas A&M AgriLife Extension Service, Texas A&M AgriLife Research, Texas A&M Forest Service, and the Texas A&M Veterinary Medical Diagnostic Laboratory.