January 16, 2009

SUBJECT: 2008 Irrigation Survey

Results of the 2008 Irrigation Survey are enclosed. The total irrigation system acreage of 1,446,754 acres represents a decrease of 46,325 acres since 2004 (a decrease of 3.1%). The distribution of the types of irrigation systems was: Center pivot systems - 81% of the irrigated acreage; cable tow and hose pull travelers - 8.5% of the irrigated acreage; drip irrigation systems - 6.6% of the irrigated acreage; solid set type irrigation systems - 2% of the irrigated acreage; Golf course and athletic fields - 1.3% of the irrigated acreage; and portable pipe systems - 0.6% of the irrigated acreage. Labor intensive irrigation systems (portable pipe and travelers) continue to be replaced by more efficient, less labor intensive systems (center pivots).

The acres of irrigated crops was 1,548,772 acres. Corn, cotton, and peanuts account for 67 percent of the irrigated crops. Soybeans and winter grain crops had the largest increase in irrigated row crop acreage since 2004. Irrigated soybean acreage increased almost 200 percent and irrigated winter crops increased 460 percent. The increase in soybeans can be attributed to the decrease in irrigated cotton acreage. The increase in winter crop irrigation can be attributed to the unusually dry weather at the end of 2007 and early 2008. Normally, these winter crops can be produced without the need for irrigation and these acres would not be as significant in the survey. Irrigated corn acreage also experienced an increase (30%) probably due to biofuel markets. Blueberries (alternative specialty crop) also experienced a substantial growth in irrigated acreage (86%). Acreage changes in most other crops were normal annual fluctuations.

Amounts of water applied in 2008 were typical of a “dry” year. Corn, cotton, and peanuts averaged 13.9 inches, 10.0 inches, and 10.1 inches respectively. Crops receiving the greatest amount of water were field nursery (32.4 inches), greenhouses (33.0 inches), and athletic field/golf courses (25.8 inches). Crops receiving the least amounts of water were soybeans (6.7 inches), grain sorghum (5.8 inches), and pasture (8.1 inches). The average irrigation amount applied over all crops was 8.9 inches. The “normal” year average application has been 5”-6”.

Almost 42% of the systems were powered by diesel fuel. Electricity powered almost 56% of the systems. This marks a continued growth in electric powered systems. Most of the reason for this shift is due to changing/increasing diesel prices. However, the fact that many of the added irrigation systems have been small in size and therefore easily powered by electricity could also explain some of the change. Water sources for irrigation continued on about the same trend as in the past with ground water supplying about 64% and surface water about 35% of the water in the state. The remaining 1% was supplied by wastewater sources.

Acres treated by chemigation are included in the survey. Fertilizer was applied on 155,809 acres, herbicides on 5,981 acres, fungicides on 8,148 acres, nematicides on 4,576 acres, and insecticides on 19,632 acres. It is important to remember that this was acreage that was treated at least one time. In many instances, more than one application of a material may have occurred which would increase the chemigation acreage if taken into account.

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Table 1. Compilation of Georgia Irrigation Survey
### Irrigated Acreage

#### by Crop:

- **Soybeans**: 795 acres in 1970, 6,365 acres in 2004.
- **Blueberries**: 1,542 acres in 1970, 1,130 acres in 2004.
- **Pecan - Sprinkler**: 0 acres in 1970, 9,774 acres in 2004.
- **Pecan - Drip**: 0 acres in 1970, 22,774 acres in 2004.
- **Other Crops**: 1,179 acres in 1970, 9,507 acres in 2004.
- **Golf Courses**: 0 acres in 1970, 1,728 acres in 2004.
- **Athletic Fields**: 0 acres in 1970, 1,210 acres in 2004.

#### by Source of Water:

- **Surface water**: 5,990 acres in 1970, 1,033 acres in 2004.

#### by Use:

- **Field Nursery**: 5,440 acres in 1970, 1,179 acres in 2004.
- **Blueberries**: 1,542 acres in 1970, 1,179 acres in 2004.
- **Other Crops**: 1,179 acres in 1970, 614 acres in 2004.

#### by Irrigation System:

- **Portable pipe (hand-move)**: 6,365 acres in 1970, 6,966 acres in 2004.
- **Hose Reel (hose pull)**: 0 acres in 1970, 696 acres in 2004.

### Number of Irrigation Systems

#### by Type:

- **Cable-tow**: 1,377 systems in 1970, 17,213 systems in 2004.

### Number of Systems by Source of Water:

- **Ground water**: 582 systems in 1970, 16,266 systems in 2004.
- **Surface water**: 5,990 systems in 1970, 1,033 systems in 2004.

### Number of Acres under Chemigation:

- **Fungicide**: 6,617 acres in 1970, 1,764 acres in 2004.

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*All data compiled from estimates supplied by county Extension agents for educational purposes only.*