

Another Conservation Success Story...

Irwin County, Georgia

March, 2007

Conservation Pays in Time and Dollars Saved!

Waterloo farmer Don Register figures that retrofitting high pressure pivot systems to a lower pressure system with nozzles is a conservation practice well worth the effort! In fact, he's so pleased that he plans to convert all of his systems—with or without government cost-share assistance.

"So far I figured I've saved 40-45% in energy costs compared to the old high pressure system. I didn't realize the saving in energy costs until I made this improvement. It's been a big help especially in these dry years. I used Environmental Quality Incentive Fund (EQIP) funds to do the first retrofit and have applied for additional cost-share, but I plan to do more retrofits whether I get assistance or not," Register said.

Register has both irrigated land and dryland crop fields. The center pivots were installed in the late 1970's to improve crop production.

"I just about have to have them now. If the weather this year is as dry as the last couple of years, I may not plant my dryland acres and just leave them idle," Register said.

"So far I figured I've saved 40-45% in energy costs compared to the old high pressure system."—Don Register

"Our pivots are old high pressure systems with impact nozzles that spray the water up in the air. We are in the process of retrofitting the pivots to a lower pressure and installing spray nozzles on drops. "We have limited water supplies on the farm. The nozzles on drops place the water closer to the crop and soil. There is less evaporation loss and with our strip till crops, we don't lose any water to runoff."

All cropland is farmed with strip tillage methods. Small grain cover crops provide winter cover and/or a grain crop. "We used to have terraces, contour farming and grassed waterways to control erosion. We had a lot of crooked rows and we still had erosion in our fields.

Cover crops and strip tillage work better on our land—and our soil has more tilth and works better. A key to making this system work is to get your cover crops planted early. We try to get them planted in October or early November right after peanut and cotton harvest. Planting early gets the cover up and growing before cold weather slows the growth," Register said.

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Don Register (L) chats with Danny Tyson, (R) USDA-Natural Resources Conservation Service in one of his cover crops. Cover crops help prevent soil erosion.

All of the pine timber is managed for long term (saw-timber) production. "We have slash pine, loblolly pine and long leaf pine and manage all of it with thinning and prescribed burning. We use row thinning and selective thinning to leave the best trees for future growth," Register pointed out.



Mary Register, Mary Leidner (USDA-Natural Resources Conservation Service) and Don Register (L-R) 20 year old pine timber being thinned for the second time on the Register Farm. Harvested wood is sold for pulpwood and/or sawtimber.



Mary Register, Justin Sutton, Don Register (L-R) Don and Mary Register on their home farm in Waterloo, with grandson Justin Sutton. Don's grandfather cleared this land nearly 100 years ago. Justin is an Irwin High School junior with plans to attend college and return to the farm.

"Right now we are thinning a 20-year-old stand for the 2nd time. Our goal is to leave about 400 trees per acre for continued growth. We use prescribed burning after thinning to manage the understory and to keep the fire hazard down. I'm careful when I burn. We don't want to remove too much ground cover or we'll have erosion problems on this hilly land.

Some of our pine land was highly erodible cropland and we used the Conservation Reserve Program to set the land in pines. It will wash if you don't keep a good cover on it even when planted in pines."



Don Register shows a retrofitted irrigation nozzle designed to save water.

 **Natural Resources Conservation Service**
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**Middle South Georgia
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Conservation District**