ADE — A day devoted to studying crawfish production begins near a USL Research Farm dairy barn — a sign of the times for Louisiana's aquaculture industry.

Jay Huner, a USL professor and aquaculture specialist, climbs the side of an open water tank normally used to clean the adjacent feed bin. Huner uses the tank to raise a potential money-maker for Louisiana crawfish farmers.

But the money-makers aren't crawfish. They're goldfish and koi carp, which make lousy eating but are valued by gardeners, aquarium-owners and related fanciers as ornamental species. Some full-grown koi sell for hundreds of dollars.

"These are my babies," Huner says, flinging a scoop of fish food into the water. The fish show flashes of white, red, orange and green as they emerge from deep in the murky water.

Huner thinks that if a crawfish farmer can raise a few koi along with the mudbugs in a crawfish pond, the farmer can make a few extra bucks. Not hundreds of thousands of dollars, but some extra money for a farmer willing to try something new.

And if crawfish farmers aren't already looking for ways to fatten the bottom line, they probably will be soon.

Well-publicized competition from China, where cheap labor harvests and processes tail meat for $1 a pound less than Louisiana people do, has driven prices sharply downward. A pound of tail meat that sold in supermarkets for $7 three years ago might sell for $4.50 now. That's good for consumers, while it lasts.

But it's not good for the local industry. In the 1992-93 season, the last year for which the Cooperative Extension Service has figures, Louisiana's farmers raised 53.3 million pounds of whole crawfish worth $36.7 million in gross farm value. Call it half a dollar a pound.

On Wednesday, USL research technician Will Bernard and I trucked 341 pounds to a nearby seafood market. After we pulled our 8% sacks off the scale and putting them into a cooler, the clerk gave us a check for $87.

For that quartet a pound.

Industry people have been warning for months that Chinese imports are priced at levels that local producers can't match.

In the past, they might have turned to federal officials for trade protection. But since the current presidential administration has generally leaned toward free trade, and since China alone has the influence to dissuade North Korea from building nuclear weapons, trade sanctions seem unlikely.

So Louisiana's crawfish producers will need some new ideas.

The USL Research Farm is off W.J. Bernard Road near Le. 92 east of Cade. The crawfish program's portion of the farm covers about 45 acres. Of that, one pond accounts for 30 acres. That pond produces most of the crawfish, the sale of which gives the program a little extra cash, and also functions as a giant experimental control.

On the other side of a levee are 17 half-acre "replicate ponds," or rep ponds, that recreate conditions in the big pond except for whatever factor the scientists are studying at the time.

Off in a corner is a pond built not with an circular levee but with a spiral-shaped levee. The idea, Huner says, was to increase the total amount of levee surface, giving the crawfish lots of space to burrow and reproduce.

Unfortunately, the more crawfish in a given amount of water, the less they grow. The pond turned out to be "an excellent producer of very small crawfish," Huner said.

Pond configuration is one factor. There are others: the type of bait used in traps; the harvesting method; the harvesting method; the harvesting method; the harvesting method; how, if at all, the ponds are protected from wading birds; the proportion of the red swamp crawfish to the less desirable white river crawfish in the population; the type of plants in the ponds; and at what point in the autumn the farmer refills his ponds, signaling the crawfish to crawl from their burrows with their young.

Huner and other faculty members think up the experiments, interpret the data, and decide...
whether this or that method works.

Will Bernard and George Rodriguez are the ones who gather the data. That means they count crawfish. And that means that every day during the fall-to-spring season, they run traps, just like the people that their information is supposed to help.

Rodriguez will work only during the season, often running traps in the production pond and "grading" the day's crawfish catch by removing leftover bait and the turtles and fish that make their way into the traps.

Next month, crawfish will begin digging burrows deep into the mud, taking Rodriguez' job with them. He's wondering where he'll find a job then.

Bernard is the grandson of the W.J. Bernard for whom the nearby parish road is named.

The USL Research Farm occupies land that was in Bernard's family for generations. He points to a tree near the dairy farm, a pecan tree whose trunk curves gently. Bernard says the tree became curved as it grew around the eaves of the original plantation house, once one of the oldest plantation homes around.

Bernard, 34, has worked for USL for five years. Most of his in-season days are occupied with wading into a rep pond and collecting the crawfish from the eight pyramid-shaped traps set there. Then he counts the crawfish harvested from each pond, weighs them, and figures out how many white rivers and swamp reds were in the catch. So somebody will be able to figure out how big the average crawfish is under various conditions, and how factors affect the overall catch.

You want factors? Bernard has seen factors.

Huner sometimes experiments with different foods. "We've fed them corn, cornbread and soybeans," Bernard said. "He's even fed them dogfood, I think."

String grids cover some of the ponds to see if the grids will keep cormorants from eating the fish. Nets line other ponds near the banks, where the crawfish tend to be.

Part of the counting process is separating the reds from the whites. Bernard says the reds tend to have the yellow fat people associate with boiled crawfish. The whites tend to have green-colored fat.

If Louisiana crawfish producers are to be shut out of the processed tail-meat market, then the key to staying in business might be their ability to raise big swamp red crawfish for boiling early in the season, before the Atchafalaya Basin fishermen start bringing in wild crawfish of decent size.

Reds have shorter pincers than whites do. Reds also have a dark nerve cord that is visible along the underside of their tails. And the hard shell covering their bodies appears to be in one piece.

Whites have long, slender claws. The two pieces of body shell have a visible seam, and the tails lack the dark nerve cord.

Both kinds are capable of inflicting a good pinch, which I learn as I help Bernard sort. A thumb-operated "clicker" or counter, keeps track of each crawfish as it's transferred. The proportion of whites to reds varies widely from pond to pond, even though they're separated by only a few feet.

One more thing about the white crawfish: They're more vicious than the reds, Bernard believes. "You put two white crawfish in..."