

65 years of SIPAC innovation

(Continued from page 5)

the area determined that such conditions are suitable for grazing animals, and to this day, research at SIPAC focuses on livestock agriculture — a major part of southern Indiana's economy.

Beyond grass-finishing

"It's a forage based operation," tells Tower of SIPAC, explaining that abundantly sloped landscapes benefit from healthy, erosion-preventing forage. He points out fields of well-cultivated native grasses — Indian grasses, switch grasses — enthusiastic about Indiana's natives as "high quality forage."

Since SIPAC's beginning in 1953, the farm has raised beef cattle. Herefords were originally hand-picked in Texas, brought by rail to French Lick and then trucked to the farm. A dairy operation was added in the 60s and culminated in the mid 80s, and other livestock have enjoyed intervals of tenure as well. (Ultimately most all animals on the farm are being raised for commercial consumption. The farm partly maintains itself by selling its product for profit.)

Staying abreast of innovation and changes in consumer concerns is paramount on the farm. To this end, SIPAC cattle are grass-finished (forage and pasture fed through life) rather than grain-finished. "If somebody's just getting started or they want to change how they manage," says Tower, "they can come in and see what we're doing. We try to operate within the same perimeters that a producer would."

The farm is dotted with handling pens, where cattle may be separated according to weight (and other criteria) by researchers. "Sometimes it's really labor intensive," explains Tower of experimental protocols. "It depends on the project. If you look at the number of animals we have and the staff we have, for a general farm we'd be considered [overstaffed]. But the research really varies — work load varies. You gotta be able to do whatever is [required]."

A large facility that was once used for dairy production is now re-purposed for newborn animals and youngsters. Here kid goats buck their tiny heads, and fuzzy lambs trot in a herd: hair sheep and goats are also raised on the farm for demonstration and experimentation.

Hair sheep do not require shearing; instead, the sheep shed their "hair" as many other mammals do. This makes the breed low-maintenance and lowers producers' costs. Interest in the breed increases within the industry, and Tower has maintained the SIPAC sheep flock for just over a year.

"Wool doesn't have the value that it did at one time," informs Tower, "and the number of shearers aren't out there." The farm continues to research best practices in the care of these animals.

Tower explains why SIPAC chooses to demonstrate goat production. "At one time, the United States was the largest importer of meat goat in the world," he informs. "Ethnic groups, Muslim religion — goat is...very important. Lots of Hispanic countries, it's a major part of their diet. Those folks have come to the US, and they want to maintain their traditions just like anybody else."

The meat goat industry differs from other livestock industries. Unlike cattle for example, depending on cultural and religious traditions, goats at various stages of life are desirable to consumers.

And goats have taken on another interesting role on the farm...

Fish and Forestry

A full half of SIPAC's 1300+ acres are covered in thick Indiana forest. Ron Rathfon serves as Regional Extension Forester for the area, specializing in timber marketing, oak regeneration and ecology, tree planting, and invasive vegetation management. (Throughout its early days, the farm even had its own sawmill which still stands.)

"A lot of the woods," tells Tower, "have been under management since '53...Obviously in Dubois County, the lumber and furniture industry — it's value is just part of the economy. So [forestry] really fit in well — how to manage for quality oaks and hardwoods, how to get them to regenerate and protect things."

The issue of invasive species is a large problem across much of the United States, including the Midwest. "It's a big, big problem," nods Tower. "When [invasives] take over that under-story, you can't get the regeneration of your oaks and things. It's a big issue."

Along gravel-covered County Road 1125 E, which bends through part of the farm, skinny white place markers dot a wooded embankment. The place markers appear to be roughly two to three feet in height. At one time, according to Tower, invasives had so taken over these woods that a person standing on the embankment could not be seen. The place markers were all but invisible.

"When we first put those in there," he nods, "sitting right here, we would not have been able to see any of those stakes, because that vegetation — multiflora rose — was so thick that you couldn't even walk through it if you wanted to spray it or cut it or do anything."

Now the stakes are clearly visible, as is the thick bed of brown leaves and healthy mulch

covering the forest floor. Underground rock can be seen jutting out of embankments, and the roots of well-established trees poke through the forest floor. The few spiky brambles that tickle the dirt are bent and bare.

Tower explains that the transformation took only six short years.

"One of the things that Ron wanted to do was utilize the goats," he says, "to graze all this stuff. So all the green short stuff on this hillside was brier bushes and autumn olive and things like that, and that's something goats prefer to browse. Goats want to eat at their eyeball level and up. If they have to stand on their back feet to eat, they're more happy than putting their head down and grazing like cattle."

The skinny PVC spikes were measuring points at which Rathfon collected data. According to Tower, the practice of using goats to clear brush is common out west, where overgrown brambles could quickly become powerful fuel for forest fires. Rathfon is now in the process of compiling his report on allowing goats to graze local invasives.

The same stretch of road just happens to exhibit another interesting forestry project. Near a small creek, a portion of forest was once used as a wintering lot for bulls. The animals were moved into more suitable conditions, and foresters utilized the beaten down area to plant trees.

"Deer browse is so bad," explains Tower, "that a lot of times they eat the tops of the trees, and you can't get them established."

With clever netting on a three-dimensional fence, researchers were able to establish what is now a lovely, young forest of tall, lean hardwoods, including walnuts. "Deer see height, but they don't see depth very well," tells Tower. The experimental fencing appeared too wide for deer to jump. The concept



SIPAC animals are friendly and curious. Cattle in particular are accustomed to human contact. It is part of the cattle's grazing lifestyle to be herded daily by farm superintendent Jason Tower from one abundant pasture to another.

proved successful.

Besides breath-taking ravines, handsome forests and opulent fields, SIPAC is dotted with 18 ponds, all of which were built after the land was purchased. Originally the ponds were used as watersheds for livestock and demonstrations of best practices for that purpose. "They've always kept livestock fenced out of them," nods Tower, "which helps maintain pond life and water cleanliness." Water is able to be gravity fed from the ponds, as the original construction included pipes from the dams.

Cattle are allowed to graze around ponds a day or two each season, just to keep the brush down, but for the most part, the ponds are being re-purposed these days. Driving by a large one not far from the farm's headquarters, Tower points out an empty crate resting beside a small dock. The day before, researchers from Purdue emptied the crate of pond-grown tilapia.

According to Tower, the crates are 4x4x6 feet and rest below the water with four to five hundred fish inside. Even tilapia, a warm water fish that is not found in the temperate Indiana wilderness can be raised in Indiana ponds, and aquaculture is a growing industry in the state. Different fish may be raised in different seasons and in variable conditions. "We did rainbow trout a few winters," reports Towers. Plans for aquaculture experimentation are ongoing at SIPAC.

Outreach and inquiry

"The ability to gather information...the demonstration stuff...spending an afternoon

(Continued on page 7)