

He Says Multiple Crops Multiply Profits

Brian Brhel grows multiple crops in the same field, and he says it pays off. In past years he has fall-planted vetch and triticale in the same field, harvesting the seed the following year. This past spring he overseeded with peas and some oats.

"The winter had been hard on the vetch and triticale, and I wanted to thicken up the stand," explains Brhel, who harvests seed for his own use in cover crops and to sell to others.

Initially, Brhel used a seed cleaner on his homegrown seed. He switched to a spiral separator that used the falling grain's centrifugal force to separate the seeds.

This summer he invested in an ISM (Impeller Separator Machine) ordered through Friendly Meadows, Millersburg, Ohio (www.graincleanersoh.com; ph 330 473-7647). The Ukrainian-built ISM allows him to clean and separate grains based on weight and shape. It also gives him the potential to do custom seed cleaning for

neighbors.

"I had fractions that were almost entirely triticale, others that were almost entirely vetch and others that were a combination," says Brhel. "The other crops go into still another fraction to be run through again or used in a mixed cover crop.

"Some of my customers want the vetch/triticale combination," he says. "With the ISM, I can visually tailor the mix to the customer's needs and then send it off to be tested.

"You have to give up a little, such as when the hairy vetch was ready but the oats were not quite dry," he says. "There was some shattering of the vetch. As I planned to reseed with vetch anyway, I won't need as heavy a rate."

While the yields of the individual species weren't as high as if they were planted alone, Brhel is confident the end results are superior. As with mixed species cover crops, the impact on soil health is multiplied with



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poly-cropping.

"My goal is to reduce the use of commercial fertilizer while adding value through the sale of harvested seed in the crop rotation," says Brhel. "Meanwhile, the poly-crop and rotations are building soil health."

This year's poly-crop field was seeded to vetch this summer and will be harvested in 2021 for seed. He will replant it to a cover crop with as many as a dozen species.

"I may graze it in late summer and fall," he

says. "Then I will plant it to corn in 2022. It is really exciting to see what can be done with the combination of crops and livestock. If I don't need to buy commercial fertilizer, I don't have to make a 200-bushel corn crop to be profitable."

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Breeding pairs of rabbits are kept in wire cages in a high tunnel hoop house. Grow-outs are moved to pasture pens at 6 to 8 weeks of age.

How To Profit Raising Rabbits

Rabbit producer Nichki Carangelo likes rabbit meat and thinks nearly everyone would if they tried it.

"I grew up eating rabbit meat," says Carangelo. "Demand in my area is so strong that I haven't had to work hard to sell our meat. However, a lot of people who buy our chicken and pork look at the rabbit meat and say, 'How could you?'"

Carangelo spells it all out in her book "Raising Pastured Rabbits for Meat" where she passes on what she has learned as the manager of livestock and direct markets for Letterbox Farm Collective (LFC).

When she and her husband Laszlo Lazar started raising their own food, rabbit just made sense. She is now responsible for production and marketing 3,000 pastured meat birds a year, around 30 heritage hogs, 500 rabbits, and eggs from 400 laying hens.

Her book is perfect for the person starting or contemplating starting rabbit production. It includes start-to-finish plans for pasture-based production; care and breeding techniques; nutrition guidelines; processing instructions; marketing advice and enterprise plans.

"I thought our market would be high-end foodies and chefs, and while they exist, rabbit is simply traditional fare for a lot of people," says Carangelo. "It is a staple food in many parts of the world, but they don't have the luxury of picking it up at the grocery store. If they can find you, they are willing to travel to get it."

To help her prospective and regular customers find her, Carangelo relies on social media. "You need to be on the internet with a website with good appeal," she says.

"The biggest factor in failure is poor or inconsistent production," says Carangelo. "In order to build a market for a product,

you have to have a consistent product. People want to know where to go to get what they want. They don't want to be told you are sold out or have a waiting list."

A key factor in production, she notes, is a productive herd. "You have to have a herd that breeds easily and regularly for a consistent supply of meat," says Carangelo. "If you don't cull does or bucks that aren't performing, you get small litters or have trouble."

When production is going smoothly for Carangelo, a 26-doe herd will produce up to 1,000 head of young rabbits a year. She shoots for around 700. At a 55 percent dress out weight, that gives her from 2,100 to 2,450 lbs. of rabbit meat to sell.

Carangelo prefers pasture-raised rabbits. While her book includes different production methods, she goes into the greatest detail on her Wire-Pasture Hybrid method. She keeps breeding pairs in wire cages in a high tunnel hoop house. Grow-outs are moved outside to pasture pens or rabbit tractors at between 6 and 8 weeks of age.

"The pens are easy to move around, escape proof and shielded from the wind, sun and rain," says Carangelo. "They are a good animal welfare practice and equally good human welfare practice. We don't have to clean the manure out of barns."

Each pen holds 24 to 30 rabbits. The 2 by 4-in. wire floors keep the rabbits from digging out, while still able to forage. "The rumor is that rabbits won't eat flattened grass, but that's not true," says Carangelo. "They will spend all day pulling up grass."

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Midwest-Grown "Ocean Salmon" Debut



AquaBounty plans to produce genetically modified salmon in the Midwest, using a land-based, recirculated water production system.

A farm in Indiana will soon be producing genetically modified (GMO) salmon with DNA from Chinook ocean salmon. AquaBounty CEO Sylvia Wulf says the 1,200-metric ton production facility is already selling conventional farm-raised salmon, but that the new GMO is expected to be a game changer.

"I believe aquaculture is the next wave of agriculture in the U.S.," says Wulf. "We are in the planning stage for a larger 10,000-metric ton facility, likely in the heartland of America."

Expanding production in the Midwest makes sense from both production and sales. The majority of salmon rations are soybean based. In addition, Midwest locations are close to major markets.

"Because of the way we farm, we can place our farms near consumers," says Wulf. "As a result, our salmon is fresher than that shipped in from Norway or Chile."

The way they farm is unique. Conventional coastal operations flush excess food, medication and waste into the ocean. By contrast, the totally enclosed AquaBounty system uses mechanical and bio filtration systems to reuse 95 percent of its water. Any waste recovered can be land applied, and there is virtually no potential for disease-causing parasites requiring medication, as in a sea-based farm.

The land-based system also counters concerns that GMO salmon could be accidentally released into the ocean to compete with native salmon. The vertically integrated AquaBounty retains total control of AquaAdvantage salmon from egg production to marketing.

Wulf notes that the existing facility in Indiana has been profitable with conventional salmon. She says it will be even more profitable with the FDA-approved

AquaAdvantage salmon. It is the first GMO animal to be approved.

"AquAdvantage salmon take 10 months less to reach harvest size, which means we are able to produce more healthy protein for the same investment and footprint," says Wulf. "They grow faster in the early stages and eat and process feed incredibly efficiently, almost 25 percent better than conventional salmon."

Massachusetts-based AquaBounty maintains 2 similar, land-based facilities on Prince Edward Island in Canada. A 250-metric ton production unit and hatchery are located at Rollo Bay. Its first harvest of GMO salmon is expected in early 2021.

A smaller facility at Fortune Bay is the original AquaBounty facility and now is used primarily for research and development.

While the concept of GMO crops and livestock (including fish) continues to be controversial, Wulf is confident AquaAdvantage salmon will be accepted. She points to the 30 years of research behind the FDA approval.

"We want to make our salmon as affordable as possible," she says. "Extensive research says 80 percent of consumers care about price, access and quality. They indicate that they will try it, and if they like it, they will buy it again."

"We know how to operate a land-based, recirculated production system," says Wulf. "That and our breeding and bio capability are advantages we can take to other species."

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