

# Manage cows with facial recognition technology

New technology from 406 Bovine streamlines cow identification with facial scans

By **Gene Johnston** | Published on May 15, 2024

Facial recognition technology for humans is rapidly finding a home in banks, airport security checkpoints, and other public venues. It scans you, and it knows you.

The same technology has come to the cattle industry. 406 Bovine has worked with software developers to make it possible to individually identify your cattle by simply taking a photo scan of their head with your smartphone. The system will let you tie that exact animal to any records database you keep.

Bryan Elliott, who's been in the cattle business throughout his life, is the founder of 406 Bovine. He started the cattle facial recognition development process a few years ago as he saw the growing importance and value of accurate animal ID, and the problems of lost records.

"I met with some technology experts," Elliott says. "They asked me if I could tell my cows apart by looking at them, and I said yes, if I spend enough time with them. They said that if I could tell them apart with my own eyes, they could make scanning software that could do it, too."

They began building the system in 2020. Since then, it's been tested, tweaked and improved over many thousands of head of cattle across several states. Finally in November of 2023, Elliott was ready to launch.

Here's what he told us about his new technology product in a recent interview:

## SF: How accurate is it at identifying the exact animal?

Elliott: We have a huge database of cattle in our system that we've scanned and tested as we built it. Our accuracy rate is 99.9% (one miss out of 1,000) on animals that have colored markings on their face, like a baldy. On solid-hide animals (no markings), it's just slightly less accurate, but still over 99%. It's really good.

## SF: How does it work?

Elliott: It's looking at unique things on the face of the animal. It looks between the ears, below the poll line, and down to the muzzle (nose). That forms sort of a triangle, and from those scans every animal is different. We've even tested it on twin animals, and it is just as accurate.

You take the first scan of an animal's face and load it in the 406 Bovine system, and that picture goes to our cloud storage. The next time you scan that animal it will match it to the original scan, and you can tie it to any information you have on that cow.

## SF: Does the facial scan change as an animal ages?

Elliott: We've tested it from weaning age on up to backgrounding age and into the feedlot age of 16 or 17 months, and it is accurate as they age. We're working on the system for pre-weaning calves, and we expect to have that. And we're working on it for other species of animals, too.

## SF: Will this replace ear tags?

Elliott: I don't think so, there are places ear tags are still needed. But with our technology, we can identify an animal at any time in any location, not just the two or three times a year it may go through a chute. Many animals never get an ear tag, so this can identify them.

In a pasture or feedlot situation, you can zoom in for a scan from about 50 feet away and get the individual health history or calving history, or whatever you want, right there if you have cellular data connection. If you're someplace where you don't have connection, it will download to the cloud when you get in range.

## **SF: What are some other practical applications you see?**

Elliott: Well, it could be a backup to an ear tag. We know there is at least a 2% fallout rate on ear tags. With some of the newer programs where cattle need to be accurately identified for a special marketing program, like natural or grassfed, accurate ID can be worth \$350 or \$400 a head. If the tag falls out, that's lost. Facial recognition could prevent that animal's identification from being lost.

## **SF: Does this take a lot of data storage on your phone?**

Elliott: Actually, no. The scans are taken with your phone, but the data is stored in the cloud. On my 406 Bovine app right now, I probably have scans of 20,000 head of cattle, but none of it is stored on my phone. It's not a data hog.

## **SF: Does it integrate with other cattle management software systems?**

Elliott: Yes, we can plug this into any other record system you like and already use. We just bring in the facial identification function. We want you to use it in as many applications as makes sense for your herd.

## **SF: What is the price?**

Elliott: We have a lot of people already using it, and here's how it works: The first 30 days are free, so you can try it out and see how it works for you. If you like it and want to keep it, the price is a flat \$14.95 a month after that, for an unlimited number of cattle. There's really no other equipment you need, other than your phone. We think it's going to be very economical for many cattle producers to have this capability.

## **SF: Where does the company name, 406 Bovine, come from?**

Elliott: I spent a lot of time working on and for cattle ranches in Montana, and 406 is the phone area code for Montana. So, I just named the company that, no other reason. I would add that we've added a lot of people to our 406 Bovine team who have backgrounds in the cattle business. We've got every facet covered.

To learn more, visit [406bovine.com](http://406bovine.com).