

Saving the sturdy little cow that fed the pioneers

Eli Ashkenazi

About a year ago, researcher Ariel Shabtay and his colleagues located 10 Baladi cows in the town of Ghajar, on the Lebanese border. They quickly bought the cows and brought them to the state-run Agricultural Research Organization's research center in Neweh Ya'ar, where Shabtay heads the cattle research unit.

When one of Israel's leading cattle ranchers saw him unloading the cows, Shabtay related, "He looked at me in astonishment and asked, 'What happened? Are we going back 40 years?' I told him we're going back to go forward."

Baladis are a breed of cattle native to Israel and other Mediterranean countries. But the breed has been gradually dying out – either disappearing altogether or being diluted by crossbreeding with imported breeds. As



DYING BREED: Baladi cattle in the north this week.

Gil Eliyahu

a result, it is now in danger of extinction.

Shabtay and his colleagues therefore began seeking Baladi cows, which they found in Ghajar, Druze villages on the Golan and certain places in the Galilee. The growers, seeing the cows

were suddenly in demand, responded by raising their price from NIS 2,000 to NIS 6,000 per head.

This was actually the second stage of a rescue venture that began 20 years ago,

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when zoologist Heinrich Mendelsohn asked cattle grower Alon Galili to set up a herd of Baladi cattle before the breed disappeared. Galili scoured the country and put together a small herd, which he keeps in the Hula nature reserve.

"Thanks to him, we received extra time before the 11th hour," Shabtay said.

Now, he plans to mix Galili's herd with the herd he has gathered at Neweh Ya'ar, to reduce the danger of inbreeding.

Until the late 1940s, Baladi were the most common cattle breed in Israel. But when growers began raising cattle for meat on an industrial scale, they switched to Herefords and Simmentals, which are much larger. An average Baladi weighs about 280 kilograms, while a Simmental, which is the most common breed today, typically weighs from 500 to 700 kilograms.

But Shabtay noted that

the larger breeds also have disadvantages. They get sick more often, are more sensitive to environmental conditions and need much more food.

A visit to the farm at Neweh Ya'ar demonstrates his point. The Simmentals are kept in a shaded area and visit their heaping food troughs frequently, while the Baladis stand in the sun and eat less frequently.

Data sent to the farm's computers by tags around the animals' necks show that the Baladis also need less food to produce the same amount of energy, as measured by heart rate and oxygen consumption.

"There are already economic calculations showing that the smaller cows are more [economically] efficient," said Shabtay.

In an age of global warming that has sent the cost of cattle feed soaring, "There's motivation to find more efficient breeds," he explained. Thus, though he wanted to save the breed for its own sake, he also believes there are valid commercial reasons for doing so.

Cattle growers who raised Baladis in the past bolstered this view, he said: "They looked back with longing and wanted to return to them. There was no orderly research that would confirm these feelings, but when I want to learn, I go first to the growers."

Shabtay has recruited geneticists from the Hebrew University of Jerusalem to map the Baladi's genome and determine its unique genetic markers. That project will not be finished for some time, but once it is, "We'll develop crossbreeds," said Zalmen Henkin, who heads the Neweh Ya'ar Research Center.

Until the genome map is completed, the researchers are identifying Baladis solely by their external characteristics: their small size, distinctive shape and unusual flock formations – "an alpha female who stands at a particular angle and signals to the others when to run," Shabtay said. Plus, there is their energy and aggressive behavior – exactly what one would expect of an Israeli cow.