AMERICAN MINIATURE ZEBU ASSOCIATION

NOVEMBER 2013

Special points of interest:

- Texas State Fair pics and results
- Get on the AMZA 2014 Calendar
- Open call all for articles , stories and pictures of your farm, animals and family for our featured farm and our Member of the Month Articles.

INSIDE THIS NEWSLETTER

Letter from the President

Dear AMZA Members,

On behalf of the American Miniature Zebu Association, I am writing to convey our deep appreciation to everyone who showed in all of our AMZA sanctioned shows this year.

As we are kicking off the holiday season with Thanksgiving this month, I would like to state that I am very thankful for the great volunteers we have at all of our show. I am thankful for their dedicated effort and contributions of time and energy needed to have a quality show.

Volunteers are vital to the operations of a good show. We all get busy doing show stuff and too often recognition of these volunteers goes unrecognized, but never unnoticed.

Without their whole-hearted participation and assistance, I believe that the show season this year would not have been the great success that it was.

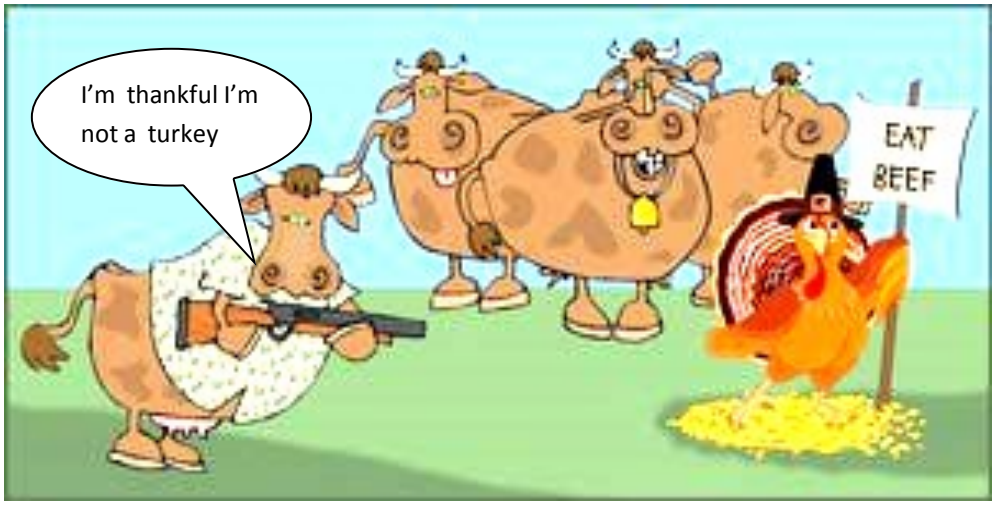
I would like to take this opportunity to encourage all our members to volunteer in their local shows.

Happy Thanksgiving to everyone.

Thank you again.

David Millison

David Millison



There are over a billion cows on the Earth today. The genes of these cattle back thousands and thousands of years. Our ancestors started it all by capturing and domesticating wild ox or Aurochs (The aurochs, also urus, ure (Bos primigenius), the ancestor of domestic cattle, is an extinct type of large wild cattle that inhabited Europe, Asia and North Africa)

Just as we decide what traits best suite the breeding of a pair of Zebu based on the genes present, so did our ancestors. But just what is the genetic heritage of domestic cattle? What experiences does the DNA of one species of cattle verses another to help the animal deal with heat, cold, hunger, thirst, disease, and all the other stresses of life? Dependence on cattle runs deep, and our own well-being is tied in with that of the animal. For example, if the selective breeding produced an animal which was an easy keeper should also inadvertently lead to an animal which may be more susceptible to a particular disease, how can selection of DNA be changed to fight that vulnerability?

For many years scientists have been tracing the genetic origins of modern breeds of cattle. Their work has taken them from Europe to South Asia to the Africa, and from modern farming facilities to primitive societies.

Before modern techniques of molecular genetics became available, the only meaningful information about how and when domestications took place came from archaeology. The study of those world-changing events, embedded as they are in prehistory, is a tricky business. Yet archaeozoologist have devised a number of ingenious ways of determining, for instance, whether dusty, 8,000-year-old collections of bones are the remains of hunted wild beasts or the former members of a domestic herd. Domestication is likely, for instance, if bone deposits show the animals died at roughly the same age. The conclusion also holds if the bones represent more males than females (herders often slaughter males but keep females to produce offspring) or if the bones indicate changes in structure and a slight decrease in size (features that begin to show up in animals after generations of domesticated life). In the case of cattle, yet another feature of domestic service is diagnostic: the presence of certain kinds of wear and tear in joints or vertebrae, which indicates that the animals were once beasts of burden.

An archaeological site can be designated a domestication center only when excavations indicate that hunting gradually gave way to herding. Archaeologists have documented such a transition in the Fertile Crescent of the Near East. Extending outward from the land bounded by the Tigris and Euphrates Rivers, this region was the center of domestication for an unparalleled number of plant and animal species, including barley, oats, and wheat among the cereal grains, and the “big four” domesticated animals: cattle, goats, pigs, and sheep. But there is evidence that cattle were also brought under domestication farther east, in what are now Pakistan and India.

By tracing the ancestry of living animals, geneticists can verify and amplify archaeological findings, thereby giving a more detailed view of domestication and its history. Blood samples and hair follicles from individual cattle are used to provide samples of certain genes, such as the ones in the mitochondrion, the powerhouse of the cell. The DNA sequences of genes can then be compared. Mutations in DNA sequences accumulate at a pace that remains approximately steady over time. The known mutation rates of common sequences can serve as "molecular clocks," which enable molecular biologists to estimate when ancestral lines branched away from each other. The sequences my colleagues and I have studied indicate that hundreds of thousands of years ago—that is, long before any domestication took place—two distinct kinds of wild cattle emerged, both of which are represented in modern populations.

Ever since Darwin, scholars argued that all domestic cattle had a common origin in a single domestication center in the Fertile Crescent. Others believed, on the basis of archaeological evidence, that the cattle of the Indian subcontinent were separately tamed. The genes of the humped, zebu cattle native to India, known as *Bos indicus*, tell a different story. On the bovine family tree, zebu are ten times further removed from the three members of the *B. taurus* group than those three are from one another. The Indian humped cattle belong to a genetically distinct group of their own. So the genetic evidence firmly sides with the archaeological findings: early farmers, in what are now Pakistan and India, did indeed capture and tame their own zebu-like version of the wild ox.

To find a variety of breeds, however, look to regions where cattle have a place not only as commodities in the economy, but in the culture as well. The primacy of the cow is still intact not just in India (where cattle are considered sacred and are more numerous than in any other nation) but also in Africa. In African pastoral societies, milk, meat, and sometimes blood from cattle are major sources of protein; cattle dung provides both fuel and building material; and steers, or castrated bulls, are used as draft animals. Herd ownership can also symbolize status, and individual cattle can serve as large, mobile units of wealth. For example, bridegrooms often present cattle as gifts to the bride's family. Cows also serve religious or ritual functions. The earliest African cattle were of the *B. taurus* type, modern African breeds show multiple influences, traceable through their genetic history.

A sampling of the genes of fifty indigenous breeds of cattle in twenty-three countries across the length and breadth of Africa was taken. Then, with a technique called principal-component analysis was used to peel away the various overlays of genetic variation caused by interbreeding, as they appeared across the continent—rather like peeling the layers of an onion. As each overlay was removed, a new previously unseen trend, or pattern of variation was exposed . One major trend was the dispersal over millennia of the original *B. taurus*-type cattle from the Sahara region to the forests of West Africa and down to the southern cape. A second, minor genetic trend was a trickle of Near Eastern and European cattle into the continent, where they mixed with native breeds.

T*h*e third and most pronounced trend in the genetic data gathered pointed to a great influx into Africa of zebu-type, *B. indicus* cattle from South Asia. A herd in Sudan, for instance, can now carry mitochondrial DNA from the domestication of a northern African wild ox, an event that may have taken place only a hundred miles from Sudan, but more than 7,000 years in the past. The same herd may also include some genes that have leaked southward from the Fertile Crescent in the same period. But strikingly, most of the genes in the Sudanese herd are likely to be of the *B. indicus* type. And the cattle are likely to be humped, like Indian zebu.

When overlaying the gene types on a map of Africa, it was discovered that the numbers of *B. indicus* genes peaked on the east coast. The clusters suggest that zebu were first imported into Africa in large numbers by sea, rather than via an overland route such as one crossing the isthmus of Suez. Perhaps the humped cattle were brought first to Arabia, then on to East Africa. It was also determined that the most purely *B. indicus* of African breeds live on the island of Madagascar, a finding that also supports the idea that the Asian cattle came to Africa by sea. The trade between Africa and India seems to have been ancient and reciprocal. African cereals such as sorghum and finger millet appear in India as early as the second millennium B.C., about the same time *B. indicus* may have first appeared in Africa.

Since their arrival in Africa, Indian cattle genes have thrived and through interbreeding, have spread throughout the continent. Zebu are generally well adapted to hot and dry environments, a boon in African regions that are becoming increasingly arid. And in the late nineteenth century, when the cattle disease rinderpest (an infectious disease of ruminants, esp. cattle, caused by a paramyxovirus. It is characterized by fever, dysentery, and inflammation of the mucous membranes). became epidemic and decimated *B. taurus* herds, zebu genes conferred some resistance.

Most cattle in Tanzania are indigenous - short-horned Zebu and Ankole - and owned by small holders.

It has been like this for a long time. According to the International Livestock Research Institute, the remains of domesticated short-horned cattle have been found in Algeria and the central Sahara dating from 7000 years ago.

Rock paintings on Mount Elgon of Kenya made about 2000 years depict shorthorn cattle. Excavations in Kenya have shown that Zebu breeds were plentiful in the Rift Valley by AD 1400 to AD 1500.

Historically, shorthorn cattle were found in almost all ecological zones with populations recorded in Sudan, Tanzania and Kenya. In Africa Region, the exact number of indigenous cattle breeds is unknown, although researchers estimate 100-150.

The Zebu is represented by at least 75 breeds, making it the most plentiful single cattle type. Approximately 62 of these Zebu breeds are found in eastern Africa, while the rest are found in western Africa.

The 'East African Zebu' have become the dominant cattle in the East African area from northern Sudan to the Zambezi river bordered by the rain forest in the west. They are divided into Small and Large East African Zebus of which 49 are recorded as Small breeds.

The Large East African zebu is represented by 13 breeds, which are restricted to the drier parts of Sudan, Eritrea, Ethiopia, Somalia, Kenya, Tanzania and Uganda. According to Das and Mkonyi, the Shorthorn East African Zebu is the dominant breed in Tanzania and there are at least nine different breeds.

The Iringa Red found in Iringa is described as red colored; its horns are usually small but can be long and upturned; the hump is well developed; and the dewlap and umbilical fold are moderate in size.

The Maasai Grey is found in Moshi, Upare and Usambara areas; their size varies. The Ugogo Grey is from Dodoma area. The Mkalama Dun and the Singida White are found in Singida Region.

The Chagga cattle are characterized as dwarfed and light-boned, with a varying coat color. In Zanzibar and Pemba are another breed, varied in size and coat color and smaller than the mainland types; their humps are well developed and fall over on one side

The Tarime (also called Shashi) breed is from Tarime in Musoma. Ngowi, Chenyambuga and Gwakisa studied the attitudes and practices of the Kurya people from Mara towards their cattle, the Tarime breed.

The cattle are mostly kept under the agro-pastoral system in which the farming community is comprised of sedentary farmers who combine crop production with livestock keeping.

In comparing crops and livestock, in terms of household food security, 52 per cent of the farmers said that livestock were the most important. In terms of income, 82 per cent said that cattle were the most important, through selling live animals and livestock products (milk, butter and hides).

The dominant natural vegetation in Tarime is savannah. In the study area, each house hold was about six people.

On average each household had about 45 cattle, of which 30 were females. They were herded and grazed on communal lands, fallow lands and in crop fields after harvesting cereal grains.

Most farmers inherited their cattle from their great grandfathers or received them through the custom of bride price.

But more than 85 per cent of farmers preferred purebred short-horned Zebus of the Tarime breed. The desirable attributes of Tarime cattle are disease tolerance (73%), good draught animals (65%), tastier meat (31%), and higher quality milk (14%).

Tarime cattle were credited for being able to walk long distances and graze and digest poor quality forage. They were reported to be docile and easier to train as draught animals.

Moreover, it was reported that the demand for meat and milk from the local cattle is higher than from exotic or cross breeds, both in rural areas and towns.

The farmers stated that the exotic and cross- breeds do not survive well in their area because they need special care (good housing, frequent use of veterinary drugs, indoor feeding and watering).

This is also what researchers have found: that indigenous cattle have higher resistance to ticks and tolerance to vector-borne diseases.

Today, when most cattle in the developed world have a slim family tree, humanity should treasure the rich weave of ancestry that persists on the plains of Africa where pastoral societies also preserve the cultural importance of this largest of domesticated species and the relationship to mankind.

And in the wider cultural setting cattle have literally been the alpha, if not the omega, of the Western world. After all, the first letter of the alphabet you are now reading had its genesis as a symbolic representation of an ox.

Recipe of the Month - Best Ever Pecan Pie

From David Millison and Rob Owens.

Rob and I thought that with Thanksgiving coming up that we would share our Pecan pie recipe with everyone.

There is a secret ingredient which we are happy to share with our AMZA friends.

Ingredients

Dough:

1 1/4 cups all-purpose flour

2 teaspoons sugar

1/8 teaspoon salt

1/2 cup cold butter (1 stick), diced

1 large egg, lightly beaten

Flour, for rolling

Filling:

5 tablespoons unsalted butter

1 cup packed light brown sugar

3/4 cup light corn syrup

1/2 teaspoon fine salt

2 cups chopped toasted pecans

3 tablespoons praline liqueur (there it is!)

2 teaspoons pure vanilla extract

3 eggs, lightly beaten

Directions

Make the dough by hand: In a medium bowl, whisk together the flour, sugar, and salt.

Using your fingers, work the butter into the dry ingredients until it resembles yellow corn-meal mixed with bean-sized bits of butter. (If the flour/butter mixture gets warm, refrigerate it for about 8-10 minutes.)

Add the egg and stir the dough together with a fork or by hand in the bowl. If the dough is dry, sprinkle up to a tablespoon more of cold water over the mixture if needed.

Form the dough into a disk, wrap with plastic wrap, and refrigerate until thoroughly chilled, at least 1 hour. Next, on a lightly floured surface, roll the dough with a rolling pin into a 12-inch circle about 1/8-inch thick. Transfer the dough to a 9-inch pie pan and trim the edges, leaving about an extra inch hanging over the edge. Tuck the overhanging dough underneath itself to form a thick edge that is even with the rim. Flute the edge as desired. Freeze for 30 minutes or so.

Set the racks in the center and lower third of oven and preheat to 400 degrees F. Put a piece of parchment paper or foil over the pie shell—be sure to cover the edges. Fill with dried beans or pie weights. Bake on a baking sheet on the center rack until the dough is set, about 20 minutes. Remove from the oven and lift sides of the parchment paper to remove the beans. Continue baking until the pie shell is lightly golden brown, about 10 more minutes. Reduce the oven temperature to 350 degrees F.

While the crust is baking make the filling: In medium saucepan, combine the butter, brown sugar, corn syrup, and salt. Bring to a boil over medium heat, and stirring constantly, continue to boil for 1 minute. Remove from the heat and stir in the nuts, praline liqueur, and the vanilla. Set the mixture aside to cool slightly, about 5 minutes. (If the crust has cooled, return it to the oven for 5 minutes to warm through.) Whisk the beaten eggs into the filling until smooth. Put the pie shell on a sheet pan and pour the filling into the hot crust.

Bake on the lower oven rack until the edges are set but the center is still slightly loose, about 40 to 45 minutes. (to keep the edges from getting dark, cover them with aluminum foil half way during baking.) Cool on a rack. Serve slightly warm or room temperature.

NOTE: If you don't have the praline liqueur, Bailey's Irish Cream or Bourbon will do.

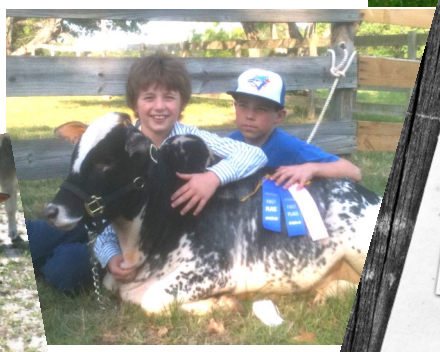
Triangle J Zebu

AMZA November 2013 Featured Farm

Meet Chris Jones and family. Chris and his family are the Owners of Triangle J Zebu.
Most of you know Chris or have at least seen him at The shows… he is the one helping out wherever he Is needed most. Helping as ring steward, assisting Fellow AMZA members show their cattle, running and getting a beverage for the judge. Chris is always Obliging and a hard worker.

At Triangle J Zebu the focus is on confirmation and temperament of their Zebu. According to Chris, color is a plus, but it is correctness and disposition of the animal that is most important to his breeding program.

Located in Corsicana, Chris is conveniently located in central Texas.



Call to day to reserve your page on the 2014 AMZA Calendar!!!

What color is my Zebu? Is it a Paint?

As registrar, I often am asked how to describe the color of the zebu being registered.

The system has been broken down into six basic colors. Black, brown, gray, red, tan or white. The animal being registered should be registered to what ever shade of the listed color selections are available. For example, if she is a light gray, list her as gray. Then the next most asked question is if the animal is a paint. "Paint" Zebu is one which has a combination of white and any other color: black, brown, red, gray or tan. Markings of white can be any shape, or size larger than about the size of a 2 inch by 2 inch area. The white can be located virtually anywhere on the body.

Keep in mind, there are regular definitions for a star, blaze, etcetera. You could in theory use these markings as a definition of a paint Zebu, but you may want to consider using a more traditional & universally known reference when recording these markings.

Ultimately the determination of what color the calf will be registered as is at the discretion of the owner at the time of the registration.

When registering your cattle, it is up to you how to describe the animal. For example, a red calf with a white sock could be registered as a paint, or as solid red with a white sock listed under random markings.

Moon spots should not be used to describe an animal as a paint. Moon spots are irregular, somewhat round spots of color on top of the coat pattern. They are randomly placed on the coat and have no order or pattern. Moon spots vary in color from light cream to dark brown. They can come in many different colors, but will never be true white or black. In the miniature Zebu the most common seems to be a shade of reddish color on top of gray.

Just as a final note, when recording transfers for AMZA members I get a lot of comments that the animal is not the color registered on the certificate. Well, it is not uncommon at all for an animal to change colors. For example, a red calf may turn to a gray adult. Or, an animal may be registered as white, and not until later in the year does it become apparent that the animal is a gray paint. At the time of transfer is a good time to update information about your animal. Color changes, identification, dehorned, etc.

I hope this article helps you in deciding how you want to register your Zebu.

Thanks, Cynde 

Do you have a show coming up?

Send an email to the AMZA office—let us know your dates and contact information—we'll get the word out.

amza.office@mail.com

Advertising in the AMZA Monthly Newsletter?

Shoot an email to the office, well send you a rate sheet and special offers!

amza.office@mail.com

American Miniature
Zebu Association

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Ferris, Texas 75125

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amzaonline.org

AMZA Member of the Month Bernie & Chris Keasler

Crooked Star Ranch

Bernie is the behind the scenes guy that has our new online system up and running. New features are allowing AMZA and its members to be more efficient & up to date.

If you haven't been online lately to register an animal, sign up for a show or view herd book, take a look!

CROOKED STAR RANCH....

Crooked Star Ranch is located in Maypearl,

Texas, approximately 30 miles south of Dallas.

We typically have between 60 - 70 animal on property and have something for everyone.

We purchased out first animals in 2005 and have not looked back. Starting with only 5 animals.

We have traveled the county to purchase some of the finest zebus available.

We pride ourselves on healthy, good natured animals that either meet or exceed the breed standard set forth by both major registries.

We will guaranteed the health of every animal and pride ourselves on educating the buyer.

Each animal sold will have a "bill of sale" and, upon request, will obtain a Texas Heath Certificate

www.crookedstarranch.com

Email: bkeasler@crookedstarranch.com

Phone 214.796.0877

Upcoming Shows

32nd Annual Ag Expo 2014 - West Monroe, Louisiana - Arrival January 17 - 2 shows on the 18th! Ike Hamilton Expo Center 501 Mane Street

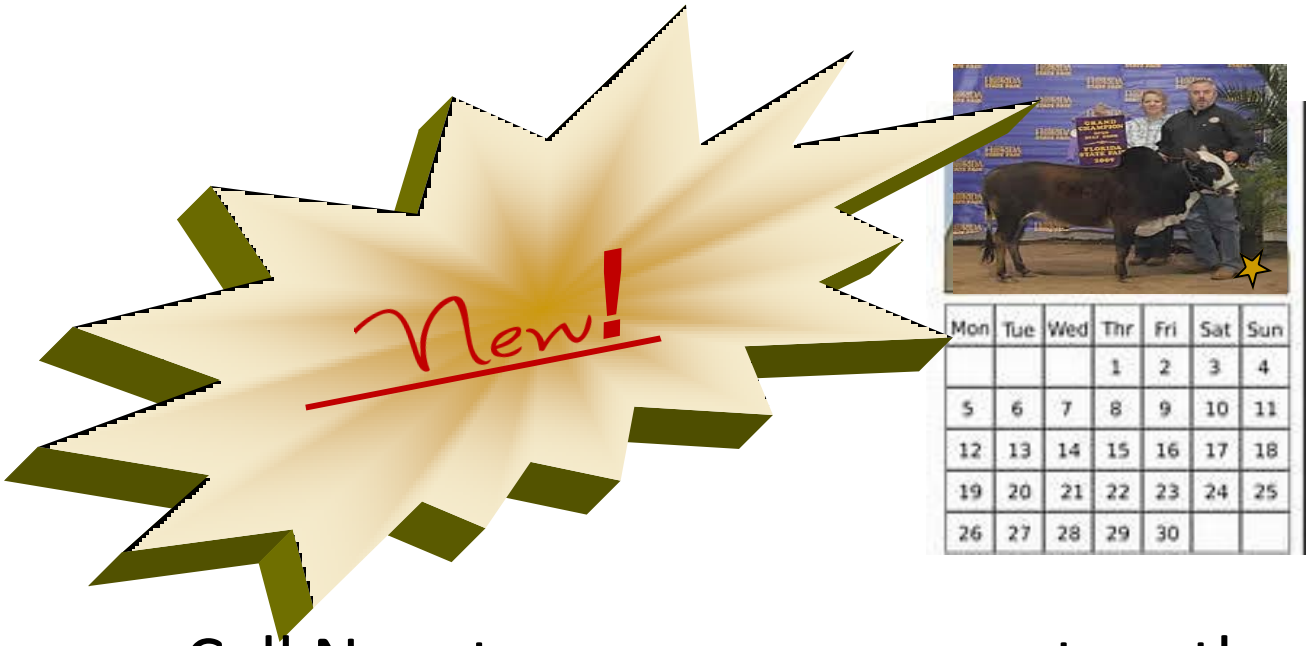
Contact Roger Maxwell - 318.259.3427

Florida State Fair - 2 Shows Contact Ed Rick kerstockco@gmail.com

www.floridastatefairag.com—click on beef entry and find Open Zebu Show

Dead Line - December 2 - must have entered on line or be post marked by 12/02

Houston Livestock Show—March 10– 11 & 12 - 2 Shows



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