

# **Asterism: Creature Corner - COWS!**

## **Intro**

Jordan: Hi, I'm Jordan.

Kit: And I'm Kit.

Jordan: Welcome to Starry Time

Kit: Asterisms edition.

Jordan: Where stars plus lines equal stories

Kit: with an asterisk.

Jordan: In these episodes we explore ideas, concepts, or people that didn't make it into our main show or just something that we want to focus in on or talk about a little bit more.

Kit: Yeah. So in today's episode, we're going to continue thematically with our discussion of Io and Zeus with a detour into Creature Corner, all about cows.

## **Creature Corner: Cows**

Jordan: All. about cows. Exactly. Cattle, bulls, their various ancestors, auroch, zebu.  
This is their week.

Kit: Can't wait.

Jordan: All right Kit, before we get started, can you tell me how much you know already off the top of your head about bovines, cows, etc.

Kit: So, um, we grew up in our early days next to a dairy farm in rural New Hampshire, as you know, because you were there. Um, so I know, um, I like cows. And I'm. I'm not really a cow expert, though. I did have a friend in college who was, the first time, um, they came to see us in New Hampshire, they saw a cow and they were like, wow, cows are so big. And I was like, what do you mean? And they were like. I thought cows were like the size of dogs. And I was like, oh, no.

Jordan: Oh no.

Kit: So here's what I do know about cows. They're bigger than a dog.

Jordan: Bigger than a dog, smaller than an elephant. Generally.

Kit: Um, they're often black and white, but they can also be other colors.

Jordan: How many breeds of cows do you think exist?

Kit: Oh, um, like domesticated cows?

Jordan: Yeah. I'll give you. Well, I'll put the over under at 100.

Kit: I think there are under 100. I feel like we've probably killed a lot of

Jordan: The opposite. I have great news for you. We have over 800 different breeds of cows currently.

Kit: That's a lot of cows.

Jordan: Of domesticated cows. Yes.

Kit: Um, I also know about cows that, um, they have multiple stomachs. I. It's somewhere between two and six, I think.

Jordan: Right. In between.

Kit: Perfect.

Jordan: It's four, but yeah. So between two and six. Accurate. Yeah. And we'll talk about those a little bit soon.

Kit: Great. I, um, also know they eat alfalfa.

Jordan: How did you learn that, may I ask?

Kit: So, um, BoP. My partner studies, um, alfalfa. So, um, and I know that cows eat it. I also know as a result, well, not as a result of this, but in general that cows produce, um,

dairy, milk and other dairy products.

Jordan: Perfect. And also that some humans may be allergic to these products.

Kit: Yes, yes. And

Jordan: Great. so to summarize, a cow is bigger than a dog, can be black and white, but can be other colors, comes in between 100 or less to 800 or more different breeds, and produces something called dairy, um, and eats alfalfa. Did I get that right? Is that pretty much what you know so far?

Kit: The other thing I know one other thing is that, um. Well, actually, I'm not really sure about this.

Jordan: Great.

Kit: I think that dairy, like, the dairy industry, contributes like, a lot of, like, gas, like greenhouse gases. I think they're a big contributor to greenhouse gases. Is that true?

Jordan: You know? Yeah, of course. Can you guess which gas in particular?

Kit: It's methane, I think. Right?

Jordan: Oh, it's methane, all right.

Kit: That's what I know.

Jordan: Right. Back to Neptoots themselves we got our own little Neptoots here on, um, here on Earth thanks to the cows.

Kit: Um, so yeah, that's, that's what I know about, um, cows. I know that you did the cow research. Um, yeah. What do you think I should know about cows, um, to be a better, uh, you know, nature enthusiast and cow supporter? What, what do I need to know?

Jordan: So let's go all the way back. First we have to go to the late Miocene, which is between about 22 to 5 million years ago. And that's when we first see the first living cow species. Evolved cows in their relationships with humans first started out, some people say in the Himalayas in India, some people say in Turkey, right around that area between Europe and Far East Asia. Um, we

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Jordan: know that humans started domesticating cows approximately 11,000 years ago. A second subspecies, which is called the Zebu, were later domesticated in a whole different event 7,000 years ago. So cows have been domesticated twice in different parts of the world, and they're all domesticated from an animal called the auroch, which is like a bigger, sturdier version of the modern cow that went extinct around 1627 due to overhunting and habitat loss. But their genes live on in a number of descendants.

Kit: Well, see, I knew, I knew that we extinct some kinds of cows. I knew it.

Jordan: You're absolutely right. Yes. So in the past 500 years, we have eliminated their key ancestor and spread into a whole bunch of different sub breeds in the domestication process. But my second fact ties back in with the myth of lo itself. I have

great news for you, which is that scientists have successfully mapped out the bovine genome in the year 2009, and they have discovered that cattle have about 22,000 genes. 80% of these genes are shared with humans. So even without Hera having to do any trickery, wickery, Io was already pretty much 8/10 a cow already. And so are you. So are me.

Kit: On BoP is gonna really have some thoughts about that interpretation of genetic material.

Jordan: My third fact is not only are cows 80% people with no need for nuance or subtlety beyond that, cows Also, and in Io's case, this would have been very helpful, have the same gestation period as humans at nine months. So what I'm trying to say here is that Hera, you know, transforming Io into this heifer, into this cow, into these cattle, you know, it's not quite as perverse or as strange or as weird as you would think on the surface. Next time you look at a cow, I think you can start making some connections between your experience and it's. The oldest living cow, which is the fourth fact I'm going to give you.

Kit: Mhm.

Jordan: Lived to be 48 years old.

Kit: Wow.

Jordan: Yes.

Kit: When this. Do you know when it died?

Jordan: Oh yes, I do. I know the name and the dates.

Kit: Oh yes, tell me.

Jordan: So the typical cow on a farm may only live to two to five years.

Kit: Oh

Kit: yeah. Uh, they can have an average lifespan if they're not being used for food of about 18 to 22 years. But the 48 year record, and she was born on St. Patrick's Day, 1945. March 17, 1945. And she died on the last day of 1993. December 31, 1993. Was a cow by the name of Big Bertha. And because of Big Bertha's world record breaking status, she was somewhat of a local celebrity. And her appearance in cattle fairs, well, she raised over \$70,000 which was donated for Cancer research and other charities.

Kit: Big Betha.

Jordan: Uh, so not only our cows have the same gestation period as us, uh, and 80% of the same genes, but also they have the inclination for philanthropy and to help others.

Kit: Well, it's interesting. 48 Interesting because like, right, like life expectancy in the, you know, 1940s was around like 60 or 65. So she's like living as long as like, you know, that's a pretty long life. Wow.

Jordan: She had a rich life, raised a lot of money for good causes. Uh, the last fact I want to give you here is an important one because I've been working really hard to show you the ways in which humans and cows are similar. But of course, as you stated,

with the stomach, there are some key differences. The main stomach of a cow can hold up to 50 gallons of food.

Kit: Wow.

Jordan: To put that in perspective, a bathtub can usually hold between 30 to 50 gallons of food.

Kit: Wow.

Jordan: And a cow consume about 40 pounds of food every day.

Kit: Wow.

Jordan: So, yeah, they. They. They live a very different life than us in that sense.

Kit: Absolutely. Wow. I learned a ton of of cow facts. While we were talking

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Kit: I was also looking at pictures of the auroch. Um, there's a really cool. It looks like, um, you know, skeleton of one in the National Museum of Denmark. They look so cute. Um, so RIP- to the aurochs. But, yeah, lots of. Lots of good cow facts. Um, do you have any other ones that you want to throw out there?

Jordan: Yeah, there's other great ones that are just kind of short. You might not know about cows. They have a great sense of smell. They can smell you from six miles away.



Kit: Whoa.

Jordan: Cows have best friends.

Kit: O. Oh, they're so cute. Uh, and now I'm just looking at pictures of cows. They're adorable.

Jordan: And I'll do one last quick rundown for everyone. Cows originated in the Himalayas and in Turkey. Cows are 80% people. Cows have the same exact gestation period as people, except they have giant stomachs. And the world's oldest cow has lived for 48 years and was named Big Bertha.

## **Outro**

Thank you for joining us today for this Creature Corner all about cows.

Kit: Moo. This has been Kit

Jordan: Moo. Moo Moo And Jordan.

Kit: Sisters. Lovers of stars and stories.

Jordan: And we'll see you next time

Kit: on Starry Time.

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