A2 Milk and Indian Native Cattle

What is the issue?

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Across the globe there is a growing interest in consuming A2 milk which has created an unnecessary hype in India.

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What is the difference between A1 and A2 milk?

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- Milk contains two major groups of proteins namely, caseins and whey proteins.
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- The A1/A2 status of cattle is determined by the two alleles for beta-casein gene i.e. A1 and A2.
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- Cattle may be homozygous for one type of protein (A1A1 or A2A2), or heterozygous (A1A2).
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- A1A1 cattle would produce only A1 milk, A2A2 would produce only A2 milk and A1A2 cattle would produce milk with both A1 and A2 beta - caseins.
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What are the speculations around A1 & A2 milk?

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- Some reports indicate that A1 protein has negative health effects like heart disease, Type 1 diabetes, autism, inflammatory response and digestive discomfort etc.
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- Researches to find the “cause and effect” relationship between A1 proteins and the reported non-communicable diseases have been inconclusive.
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- Gastrointestinal effects of A1 in animals are positive but evidence from

human experiments remain limited.
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- Symptoms of digestive discomfort could also be due to lactose intolerance, which is different from allergy due to milk protein.
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- Despite the lack of conclusive scientific evidence from human studies, several players have started marketing A2 milk with claims that it is natural, better, and free from negative effects.
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What are the concerns for native breeds in India?

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- National Bureau of Animal Genetic Resources (NBAGR), have confirmed that Indian indigenous cows and buffaloes produce A2 milk.
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- The high-yielding native milk breeds of India produced around 94%-100% of A2 milk.
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- But recent studies reported exotic breeds which were the source of A1 milk are being used for cross breeding of cattle
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What measures are being taken to conserve native cattle?

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- It should be understood that shift to A2 milk is unnecessary in India as native cattle breed naturally produces A2 milk.
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- NBAGR is currently implementing a project entitled “Delineating Beta Casein Variants in Indian Cows and Potential Health Implications of A1A2 Milk”.
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- The bureau and few private companies are offering a service for genotyping of A1/A2 allele from milk or blood samples in cattle species at nominal cost.
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- The government is also taking steps to conserve native breeds of every region with help from local people and private players.
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- Private dairies are also working on improving the productivity of desi breeds by better breeding, better farm and feed management and better animal

health.
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Source: Business Line

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