A2 Milk and Indian Native Cattle

What is the issue?

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

What is the difference between A1 and A2 milk?

- Milk contains two major groups of proteins namely, caseins and whey proteins.
- The A1/A2 status of cattle is determined by the two alleles for beta-casein gene i.e. A1 and A2.
- Cattle may be homozygous for one type of protein (A1A1 or A2A2), or heterozygous (A1A2).
- 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.

What are the speculations around A1 & A2 milk?

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

Gastrointestinal effects of A1 in animals are positive but evidence from human experiments remain limited.

Symptoms of digestive discomfort could also be due to lactose intolerance, which is different from allergy due to milk protein.

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.

What are the concerns for native breeds in India?

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

What measures are being taken to conserve native cattle?

- It should be understood that shift to A2 milk is unnecessary in India as native cattle breed naturally produces A2 milk.
- NBAGR is currently implementing a project entitled “Delineating Beta Casein Variants in Indian Cows and Potential Health Implications of A1A2 Milk”.
- 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.
- The government is also taking steps to conserve native breeds of every
region with help from local people and private players.

- Private dairies are also working on improving the productivity of desi breeds by better breeding, better farm and feed management and better animal health.

Source: Business Line