Online Trading of Milch Animals in India: Revolutionizing the Dairy Industry

**Introduction:**

The introduction of Internet platforms has changed many industries, and the dairy sector is no exception. The development of online trading platforms for dairy animals has transformed the way farmers purchase and sell cattle in India, where the dairy industry is important to the agricultural economy. The idea of online dairy animal trade in India is examined in this article, along with its advantages, drawbacks, and implications for the dairy sector.

Online trading platforms have leveraged various technological innovations to enhance their services. For example, integration of artificial intelligence (AI) and machine learning (ML) algorithms has improved animal selection and matching algorithms, making it easier for buyers to find suitable milch animals.

**Overview of Online Trading Platforms:**

Online marketplaces that allow buyers and sellers to connect and trade remotely function as online trading platforms for farm animals. These online platforms offer a quick and easy method for exploring, choosing, and buying dairy animals, especially cows and buffaloes, with a special emphasis on breeds with high milk productivity.

This online way of trading is beneficial in multiple ways which directly increases the effectiveness of business.

The major benefits include;

a. Enhanced Accessibility: Milch animal markets now have a wider audience since online marketplaces make it possible for participants from far-off places to deal. Geographical restrictions are now lessened since farmers have access to a greater variety of animals.

Access to a wider range of superior breeds through online platforms has encouraged farmers to upgrade their milch animal stock, leading to breed improvement and genetic diversity. Online trading platforms can facilitate the dissemination of superior genetic material, which can be resulted in the development of high-yielding and disease-resistant milch animal breeds.

b. Transparency and Information Sharing: Online platforms provide detailed information about the animals, including breed, age, milk yield, health records, and lineage. This transparency helps buyers make informed decisions and ensures fair pricing.

c. Increased Efficiency: When buying or selling milch cows in the past, there were usually middlemen involved, which added time and expense. Online platforms streamline the process and save expenses associated with transaction by doing away with the need for middlemen.

Online trading platforms have improved market efficiency in the dairy industry by enabling better price discovery and reducing information asymmetry among buyers and sellers. A study conducted by Singh and Chahal (2021) found that online platforms led to a significant reduction in transaction costs and improved price transparency, benefiting both buyers and sellers.

d. Quality Assurance: Authenticity of vendors and animal health data can be confirmed by reliable internet marketplaces. By doing this, the possibility of fraudulent transactions is decreased and purchasers are guaranteed to receive healthy animals with appropriate records.

e. Support Services: It is more convenient for purchasers to complete the full deal smoothly since many online platforms include extra support services like transportation, insurance, and veterinary aid.

f. Socio Economic Impact:

Online trading of milch animals has had a positive socioeconomic impact on farmers in India. These apps do is make it easier and cheaper for both buyers and sellers. Not only are prices, photographs and histories of the animals listed in advance, but many of them also offer regular services to the cattle owners where veterinarians check and certify the animals.

**Impact on the Dairy Industry:**

The rise of online trading platforms for milch animals has positively impacted the dairy industry in India:

a. Increased Efficiency and Productivity: Online platforms increase the total efficiency of dairy farms, resulting in better milk yields and increased profitability by making it easier to buy high-yielding breeds.

b. Breed Improvement: Farmers are encouraged to update their milch animal stock when they have access to a wider array of better breeds via online platforms. This can lead to enhanced breed quality and genetic diversity.

c. Market Integration: Online trading platforms bring together farmers from various areas, integrating the dairy industry. Better pricing can be made possible by this integration, which also lessens information asymmetry between buyers and sellers.

d. Entrepreneurship Opportunities: Online platforms have made it possible for people to launch enterprises as aggregators, transporters, or service providers inside the online trade ecosystem, opening up new business opportunities.

The world's largest cattle market is in India. In August 2019, two Indian Institute of Technology graduates Neetu Yadav and Kirti Jangra started this initiative as “Animall” India’s first online marketplace for Cattle trading.

Animall intends to make dairy farming business by creating a one-stop shop for everything on cattle because almost one-third of Indian households rely on dairy farming as a source of income.

The Animall app enables dairy producers all across India to create their own farms by providing them with rapid and efficient access to high-quality animals.<https://animall.in/corporate>

**Challenges and Mitigation: (this should be at last point)**

The adoption of online trading platforms for milch animals in India faces several challenges. The identified challenges such as the digital divide, lack of knowledge, trust issues, and logistics constraints.

a. Digital Divide: Online trading systems may be difficult to use in rural locations with poor internet connectivity and technology literacy. This gap may be closed by promoting digital literacy and enhancing connection.

b. Lack of knowledge: This can be resolved by making applications which are easy to understand, with local language. It can be also solved by training and awareness.

c. Trust and Verification: Online transactions must be trusted and authenticated. Platforms must put in place thorough verification procedures, including paperwork and certificates, for both sellers and animals.

d. Logistics and Transportation: Animal transportation must be timely and secure. Long-distance transportation should be done with more care for animal safety. These problems can be solved by working with logistics service providers and developing standardized transportation methods.

IV.

**GENERAL SELECTION PROCEDURES FOR DAIRY BREEDS**

**Selection of dairy cows**

The following guidelines will be useful for the selection of a dairy cow.

* When choosing an animal to buy at a cow fair, consider its breed characteristics and capacity for producing milk.
* The pedigree or history sheet that is typically kept in well-organized farms indicates the entire history of the animal
* Dairy cows produce at their highest levels throughout the first five lactations. Therefore, selection should generally be done during the first or second lactation, which is also a month following calving.
* Complete milking must be performed in succession, and the average of those milkings will provide a reliable indication of an animal's production.
* A cow should be placid and enable anyone to milk it.
* The months of October and November are the ideal times to buy animals.
* It takes 90 days following calving to observe the maximum yield.

Breed characteristics of high-yielding dairy cows

• Impressive style and carriage, feminity, vigor, and attractive individuality with all of the components working in harmony.

• Animal's body should look to be wedge-shaped.

• It need to have brilliant eyes and a slender neck.

• The udder must be securely fastened to the stomach.

• There should be a healthy blood vascular network in the udder's skin.

• The udder's four quarters should be clearly separated by strategically placed teats.

V. WHAT TO CHECK WHEN CHOOSING A DAIRY ANIMAL

a) Production traits

They mostly discuss milk volume and contents, including protein content and other non-fat solids as well as the percentage of butterfat level. Since greater product from relatively less fodder is evidence of a good feed conversion efficiency, milk volume should be viewed in relation to the amount of feeds ingested.

Milk quality often improves with increased solid content. It serves no use at all to breed a cow that looks amazing but doesn't give milk. As a result, it is important to choose animals that will produce milk.

b) Conformation traits

These characteristics, which include the udder structure, the type of feet or legs, size, and general dairy character, provide a solid indication of the dairy animal's performance.

• The udder should be pliable, silky in texture, sack-like in nature and non-pendulous but firmly attached with strong suspensory ligaments high up near the vulva region. A huge udder is not necessarily a sign of a high milk yield, in fact, it is recommended that one should choose a cow with a medium-sized (but wide base) udder that should not hang below its hock joint. The teats should be average-sized and evenly placed and oriented (pointing straight down) on the udder.

• A dairy cow's lifespan and ability to feed comfortably, particularly when in calf (a dairy cow is typically in calf for around 80% of its lactation duration), are facilitated by having good feet and strong legs. Strong feet and legs help a bull mount successfully, but in dairy animals, the focus is largely on the cows and heifers because artificial insemination is preferred and offers comparative advantages over natural mating. When viewed from behind, a cow's hind legs should be wide apart and straight, and when viewed from the side, the foot and hock should be somewhat sickled and set back. Additionally, the front legs must to be straight and have a steep, firmly attached pastern.

• The ideal cow should have a deep, long body with wide, sprung ribs, giving the rumen and other digestive system organs plenty of room. A desirable dairy cow should have a large muzzle, long neck, wide pin bones, good width between the forelegs, and a strong, straight backline.

• The classic dairy character is indicated by sharpness across shoulders and slight general leanness all over the body ending with a thin fine tail. A good dairy cow is not stocky or beefy as this shows poor feed conversion efficiency. Generally, pedigree dairy cows portray flatness of bone usually evident on the inner thigh.

c) Fertility traits

The success of a breeding program will always depend on the number of inseminations per conception. The fertility of a particular animal is best when there are fewer inseminations per conception.

Since difficult or repeat breeders are expensive to keep and result in significant losses, it is crucial to choose animals with (or from a family famed for) a strong conception rate.

A farmer will be able to set a goal of one calf per cow each year for the calving interval as a result. Choose bulls that don't hesitate to mount receptive cows or those that demonstrate extreme desire if you're a farmer who prefers natural mating. Normal signs of healthy fertility include a larger scrotal circumference and fully descending testes.

d) Longevity traits

This influences a cow's overall lifetime milk production, but other factors like health and fertility are typically very important in determining this as well. Select heifers or bull semen from herds that have a history of producing cows with high production capacity over numerous lactations and as many healthy calving as possible.

e) Health traits

A focus should be placed on selecting disease- resistant and hardy animals to stay in roduction for a long time, even though disease-prevention and control techniques are crucial for guaranteeing continuous productivity.

It may be smarter to engage in crossbreeding between exotic dairy breeds and native lines in regions with harsh climates and a higher frequency of tropical diseases (East Coast Fever and Foot and Mouth Disease), as in these environments, hybrid animals typically perform better than purebreds.

f) Calving ease traits

Wide pelvic diameter (seen from behind) and a gentle slope from pin to hip bone (watched from the side) are physical characteristics that aid in simple calving. The physical structure of a cow should show a strong, straight back or loin, which is crucial during gestation to allow the animal to feed and bring its baby to term comfortably.

g) Workability

In order to maximize yield, milking speed is crucial since the oxytocin hormone, which regulates milk let-down, depletes over time in the circulation. Therefore, it's critical to pick animals with the proper teat size, shape, and aperture (orifice size and position). Bad temperament disrupts the flow of oxytocin during milking, hence docility should also be taken into account when selecting a dairy animal.

How to produce heifers that are better than the parental stock

Many aspirational dairy producers currently have one or two cow in their backyards, so it may not always be viable for them to upgrade to better animals, but they would prefer do so.

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