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An investigation on the consumption of Cow

Table of Contents

1.0 Thesis statement:..... 3

2.1 Pre-industrial period:..... 3

2.2 Industrialization age:..... 4

2.3 The key difference between pre-industrialization and industrialization era:.....4

3.1 Treatment of Cow in the pre-industrial era:..... 5

3.2 Treatment of Cow in modern era of agribusiness:.....6

4.1 Substitute of dairy food products:.....10

4.2 Substitute of beef meat:..... 12

5.0 Conclusion:..... 13

Works cited..... 14



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1.0 Thesis statement:

Dairy farming is one of the biggest elements in the agricultural sector. Dairy based products like milk, ice-cream, butter, yogurt and many others are widely used in daily life by the people across the globe. People enjoy these products. However, there exist certain inhumane practices in dairy farming. Cows gets treated in a brutal manner by agricultural firms in order to get the most out of these animals for earning revenues. This has encouraged the researcher to conduct a study on dairy farming.

The researcher believes that:

“Dairy based products have good number of alternatives and therefore dairy based products need to be substituted by these alternative options to ensure humanly treatment to cows”.

The current study is mainly aimed at exploring the treatment of cows in both pre-industrialization & industrialization ages followed by identification of suitable alternatives to dairy products that can help in reducing the inhumane treatment made to cows in the industrialization era.

Therefore, the key objectives of the current study are mentioned below:

- To examine the treatment of cows in both pre-industrialization and industrialization era
- To identify alternatives to dairy products

The current study is pivotal as it can help in creating awareness regarding the inhumane and brutal dairy farming practices made to cows along with identifying alternatives to dairy products.

2.1 Pre-industrial period:

In the modern world of advanced technologies, companies, big industrial firms, and computer based systems it is quite difficult to image a time when there was no grocery shop, no gadgets, no internet, no shopping malls, and no vehicles. In this context, Björk and Pettersson stated that pre-industrialization period refers to time before industrialization had started (124-125). In other words, pre-industrialization period can be considered as a period when no machine,

mechanization and manufacturing process existed. As regard to the economics, majority of the activities in the pre-industrialization age existed at the substantial level. It means that at that times people used to produce goods for own consumption or for the consumption by the family due to absence of trade and commerce. In such a subsistence lifestyle, most of the goods were produced by the family and for the family (Adhikari, et al. 96). For example, a farmer grew crops to meet family needs for consumption and for selling in the market. Here, it is important to note that the pre-industrialization period is characterized by poor infrastructural development as most of the people used to live in rural areas.

However, in addition to the subsistence level living, there were some people who used to offer goods and services to other people within the community but such goods and services were not developed through huge plants and machineries. At that time, the concept of industry was confined within the four walls of house of a person. For example, men used to make and sell horseshoes using own barns to the neighbors.

2.2 Industrialization age:

The age of industrialization seems to have begun since 18th or 19th century during the world of America and Europe started moving from rural farming towards industrialized lifestyle, cities and economic activities. This change in the society marked the emergence of industrialization age. In this context, Szentléleki, et al. stated that the age of industrialization indicated a transformation in the society from an agricultural society into a new society based on manufacturing of products and services (188). In fact, the economic activities began to shift from the rural countryside towards the industrialized cities with the rise of industrialization. This can be explained by the fact that with the onset of industrialization many farmers began to realize that they were getting higher pay by working in new factories and industries. The move from rural areas to the cities is termed as urbanization.

2.3 The key difference between pre-industrialization and industrialization era:

In the view of Pontzen, et al. the basic difference between pre-industrialization and industrialization age is related to the motives of human beings (1366-1369). The principle motive of people during pre-industrialization era was to fulfill personal needs of consumption. This can be viewed as a basic motive for living a life in the society (Lim, et al. 94). On the contrary, the

basic motive turned into a commercial one during the industrialization age. In this age, the basic requirements of the people were extended towards earning money through trade and commerce. The concept of profit and savings cropped up in the society. Development of lifestyle and the society at large became a key concern.

3.1 Treatment of Cow in the pre-industrial era:

Around 20 billion gallons of milk are produced by the American dairy industry on an annual basis. This volume of milk is further processed and sold to the customers in the form of ice-cream, butter, cheese, fluid milk and others. The amount of revenue generated from this activity is around USD27 billion every year. Ventura, et al. stated that the total number of dairy firms operating in the US can be estimated between 65,000-81,000 but still corporate consolidation indicates that around 50% of the total milk production is generated by only 4% of the total number of dairy farms (6105). One can see a large number of labels and brands on the shelves of retail stores that indicate a large number of sources for the milk and milk based products. However, Shahid, et al. mentioned that in reality majority of the brands related to dairy products are owned by only a few number of large companies (4401-4403). For example, “**Dean Foods**” which is the largest dairy producing company in the US owns around 40 brands out of which 3 represent organic milk. Thus, commercialization plays a string role in the functioning of the dairy industry in the US.

Cow has been one of the vital animals amongst all others to the people since the pre-industrialization age. This is because of various natural products that can be obtained from a Cow and in addition the products are considered as good for human health. In the pre-industrialization era, people mainly used to have cows for multiple reasons. The two major uses of Cows are discussed in this section. Firstly, Cows were seen as a source of milk. Cows were milked to meet consumption needs of the family. This was during the initial pre-industrialization era but with the progress of time certain developments took place and people began to find more use of a Cow. For example, earlier people used to milk cows but later those milk were converted into other products like butter, ghee and cheese to name a few. These increased the choice of products that people could obtain from a Cow. On the other hand, Grandin observed that cow dung was used as a main source of fuel by the people in the pre-industrialization era (421). The cow dung were dried in sunrays and then were used as a fuel for cooking. Holloway, Bear and

WilkinsonIn mentioned that the pre-industrialization stage, people owned cows and were focused on increasing the number of cows through natural breeding (133). People used to consume products obtained from cows but could not think of rearing cows to consume beef based meal. In addition, no artificial means were used to get higher benefits from the cows like injections and others. Thus, the treatment towards cows in the pre-industrialization period can be considered as more humane. People used to have a separate covered place for cows within the boundary of one's own premises. Cows were taken for grazing during morning and afternoon on a daily basis. Cows were milked once in the morning and once in the after-noon. People used to take care of this animal like a member of the family.

3.2 Treatment of Cow in modern era of agribusiness:

The use of cows has increased considerably since the beginning of the industrialization age. Cows are used for daily products, farming and also for meat. In 2008, over 9.3 million cows were used in the US to produce milk whereas around 2.5 million cows were slaughtered for meat. In this context, Grandin stated that in the dairy industry cows are continuously impregnated, confined and bred for getting high milk production with negligible concern about the well-being of the cows (97). These playful animal are required to experience different types of suffering in factory farms.

Cows are required to be impregnated to produce milk like any other mammal. Thus, cows staying in dairy farms go through a consistent cycle of impregnation, birth followed by milking. The period of rest between pregnancies is quite low. Almost all the cows in the US that are used in dairy industry are ultimately slaughtered for consumption of meat. It is a common practice in the country to consider all cows with an average age of 5 years as exhausted and are sent for slaughtering whereas the meat is eaten by the people as hamburger. On the contrary, Bernstein argued that cows can live even more than 20 years (69-71).



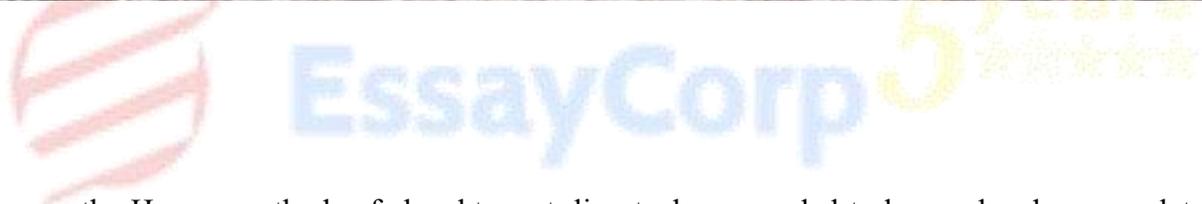
As regard to the calves, they are separated from their mothers just within couple of hours of their birth and this inhuman treatment cause serious illness among calves as they become highly distressed. On the other hand, male cows are considered to be of very less value in the dairy industry as these cannot produce milk and are therefore sent for slaughtering. While male cows are taken for beef younger male cows are taken away for veal.

In the view of Halley, a good number of dairy cows are often injected with bovine growth hormone which is a genetically engineered hormone that leads to the creation of different health issues like lameness and mastitis (328). **“Tail docking”** is yet another cruel practice observed in the dairy industry. Tail docking is the process of cutting off cows’ tails to improve hygiene. However, it causes immense pain among cows. Several studies have indicated that cows that are weak or sick or injured are regularly dragged and pushed towards the slaughtering machines.



In the US, around 34.2 million cows were slaughtered in 2010. It is a common practice in the dairy industry to separate young calves from their mother and then these calves are needed to undergo a series of highly painful mutilations. In fact, even before these cattle are one year old, they are artificially fattened through unnatural fat to achieve the average market weight and then they are sent for slaughtering. In this context, Halley stated that cattle raised for beef consumption are required to undergo different painful stages like branding, dehorning and castration (121-123). However, pain relief medicines are not at all provided to these animals.

In the US, it is a practice to press an iron which is hotter than 950°F on the body of cattle for branding purpose. The purpose of such inhumane practice is to enable the producers easily identify their own cattle and claim ownership. The average market weight in the US for cow slaughtering is 1200 pounds. Calves are artificially fattened to achieve this weight so that they can be sent for slaughtering. Here, it is important to note that cattle are fattened through unnatural diet in feedlots in only 4 states in the US whereas calves get born across the entire country. Thus, calves are forcefully sent on long trips from birth place to any of the four states without adequate protection, shelter and proper food.



As per the Human methods of slaughter act, livestock are needed to be sundered as completely insensible to pain prior to the process of shackling and slaughtering. However, several investigations conducted in this field have highlighted the fact that a good number of cows still remain conscious during slaughtering.



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4.1 Substitute of dairy food products:

People often go for dairy-free products because of health issues however it is important to identify the substitutes to dairy products in order to provide a better life to the animal cow. Some of the major substitutes of dairy food products are mentioned below with a special focus on milk as it is the principle dairy product:

Soy milk:

The greatest advantage of considering soy milk as a substitute to dairy product is that it is easily available in almost all groceries stores. Here, it is important to understand that soy milk is not a milk actually rather it is an extract from soybeans that is liquid in form. Soy milk does not contain any lactose and thus can be a good choice for people having high intolerance for lactose. On the other hand, soy milk is a plant based product and therefore has the capability to substitute cow milk. It contains vitamins, B 12, D and A along with calcium.

Rice milk:

Rice milk is made from three major elements namely brown rice starch, boiled rice and brown rice syrup. It is also lactose and can be a good substitute to cow milk. In fact, rice milk is sweeter than that of cow milk. Vanilla and sweeteners are added to it to make it tastier. In addition, rice milk is low on protein and natural calcium but it contains vitamin B12, A and D. In this context, St-Pierre and Wright stated that rice milk is one of the most hypoallergenic among all the substitutes to dairy products (277-279).

Almond milk:

Almond milk is yet another good alternative of cow milk which is made from ground almonds, sweetener and natural water. The taste of almond milk is also quite similar to that of cow milk. Medical experts say that one cup of almond milk can contain around 50% of daily value for vitamin E. In addition, almond milk is also readily available across groceries stores.

Cream cheese:

It is good to note that there are a wide variety of soy based cheese available in the market and these are non-dairy form of cheese. These soy cheese are similar to the dairy cheese in terms of texture and taste. This is one of the major reasons for the growing popularity of cream cheese.

Ice-creams:

Ordinary ice-creams are usually made from milk and thus are dairy based products. However, a good alternative to dairy based ice-cream can be rice based ice-cream. Rice based ice-creams are equally sweet like dairy milk based ice-creams. Soy-based ice-creams can also be easily found in groceries stores. In addition to this, one can also find ice-creams based on coconut milk, soy and almond in even ordinary groceries stores.

Yogurt:

In contrast to the regular dairy milk based yogurt, nowadays a large number of retail companies are offering yogurt made from nut, soy and coconut. However, soy based yogurt is the most easily available product in this regard in groceries stores. Multiple flavors are also available for the product.

Butter:

Butter is yet another major product of made through dairy farming. In fact, butter is one of the commonly used item in daily life. However, one can note in this regard that nowadays dairy free butters are available in the market that are mostly made from soy. A variety of spreads are available like soy free, whipped, olive oil, soy garden and original.

4.2 Substitute of beef meat:

There are a wide range of substitute products for beef meat. These are tasty as well. Some of the popular substitutes of beef meat are discussed below:

Lentils:

Lentils can be used to make tasty vegetable burgers. As mentioned by Von Keyserlingk, et al. lentils are highly rich in fiber, protein and magnesium (5405-5409). A good thing about lentils is that it has a meaty texture. In addition to this, lentils can be used in various soups, sandwiches, burgers and salads. The price of lentils is also very affordable.

Canned wild salmon:

This is a fish which is inexpensive. This fish is also good for the heart as it is rich in omega-3 fatty acids. Furthermore, the canned type is a good source of calcium as well. Nutritionists often suggests to shape canned wild salmon into patties for fast and easy salmon burgers and cakes. Here, it is important to note that the cost of this fish is close to beef but the good thing is that only a small quantity of canned wild salmon can be enough as this is mixed with onions, and similar other ingredients.

Hummus:

Hummus can be a good side dish or can also be used as a main dish. In this context, St-Pierre and Wright stated that Hummus are rich in nutrition (277-279). These are actually made from tahini and pureed chickpeas or sea some chick paste and thus is rich in protein and fiber. It does not taste like meat but it can be a popular choice for people looking for something hearty.

Tofu:

The key advantage of considering Tofu as a substitute for Beef meat is that it tastes like beef. However, it is organic in nature. In addition, Tofu can absorb the flavors of beef sauces and marinades. It can be grilled up or pan seared for crispy caramelization with the help of barbeque sauce.

Ground Turkey:

A non-vegetarian alternative of beef meat could be a Ground Turkey. Its texture is almost the same as of the meat used in hamburger. The cost of ground turkey is also quite lower than the cost of buying beef meat. One can also choose white meat options and that the meal can be stretched through the use of grains, beans, mushrooms and chopped vegetables to increase the overall quantity.

5.0 Conclusion:

The study reveals that commercial objectives like earning revenues and profits have mainly contributed to the development of brutal practices in dairy farming towards cows like injecting, cow slaughtering, separating calves from mother cows and others. Millions of cows are affected by this every day across the globe. Us being no exception to the same. However, the good thing is that a large number of alternatives are available for both beef meat and other dairy products like milk, butter, yogurt and others. The study indicates that it is high time for people to reduce the consumption of beef meat and other dairy products so that the stress on cows can be reduced.

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