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Mechanised farming – **boon** or **bane**?

It is proven that technologically aided mechanized-farming maintains consistency, reduces costs, increases production all while ensuring a safe, wholesome product for consumers across the globe.

By Srinivas P Kamisetty

Let's take the route of talking about relevance of farming and particularly mechanized-farming through referring to one of our favourite topics food. On a day-to-day basis an average person consumes three meals, one-two snacks and one-two beverages. The number of food staples and supplements that go into preparing this range anywhere between 35-60. Some food-for-thought would be reflecting upon the variants of crops are being cultivated to cater to the requirement of the globes nearly 7.7 billion people having thousands of diverse cuisines! With this gastronomic scene in the backdrop, it is indeed interesting to engage our thoughts in the food production cycle; where the food comes from, how it is produced, how much is produced and how the farmers produce the quality and quantity of food that is being supplied to end-users. Supplying to a population of over a billion Indians alone is certainly a gargantuan task.

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Impact on quality and quantity

With the growing food demand, the role of mechanisation in farming to improve the quality and quantity of food and methodology of growing it has become indecisive. Pondering over this a little further, perhaps one could infer to mechanized-farming as the most apt formulae to satiate to the ever-growing food consumption pattern. Large-scale food produces are really the summation of material inputs, farming techniques and automation. Using technology to grow food is not a new concept, hence it would be no exaggeration to iterate the fact that mechanized-farming has proved to be a boon to humanity and it can be comfortably referred to the evolved version of farming itself.

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Tractors replaced animal drawn farm equipment decades ago; thus, until quite recently proliferation of mechanization in farming was associated mainly with tractorization. However, the simple replacement of animals and plough is not enough to produce enough food today. This misconception has to be cleared and mechanization must be redefined in its true sense by building awareness about the availability and importance of technology that has led to effectively managing the crop cycle — right from seed bed preparation, seeding, crop care harvest and post-harvest needs of farmers.

Technology forms the basis of mechanization and is defined as a science to solve problems technically. Given the constantly growing food demand, agriculture producers are constantly on the cutting edge of technology to find new ways to meet this demand. It is proven that technologically aided mechanized-farming maintains consistency, reduces costs, increases production all while ensuring a safe, wholesome product for consumers across the globe.

Elucidating a few advantages of mechanized-farming explain its significance:

Consistency

Mechanization provides consistent yield to the farmers. Even in the early phase of the crop-cycle, farms that have used rotavators to till soil have shown consistency in yield, seeding, accurate density, row and columns. This means every seed sowed will be productive and unproductive loss of crop owing to inconsistencies in spacing of seeds leading to shadow or water shortage death suffered by saplings will be eliminated. This is affirmed by the seed sector of mechanized-farms that have made impressive progress over the last four decades. The area under certified seeds has increased from less than 500 hectares in 1962-63 to over 500,000 hectares in 1999-2000. The quantum of quality seeds now has crossed 1.5 Million tonnes.

Cost Efficiencies

The agriculture sector in India is witnessing a huge labour shortage as a result of farm labour migration from different parts of the country to the urban areas seeking better work opportunities and higher wages in cities and in industrial areas. High economic development in various states in last few years has also led to sudden decline in the availability of farm labours. In this dearth situation, techniques such as transporting and crushing among the others can be easily delivered by machines in absence of labours and are more productive in form of cost. Hence, mechanized-farms have a proven track record of increasing income of farmers, backed by inflating prices of agricultural commodities. The purchasing power of farmers in Asia is therefore increasing. For example, harvesting paddy if done by hand, the losses are very high and if done by machine, then loss is less than two percent.

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Production Efficiencies

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Environment-Friendly

Several times machines are better for environment. This can be explained best in reference to winter smog concerns of North India to which one of the key contributors is conventional straw-burning practices of farmers as it is the quickest way for them to get rid of it. On the other hand, same straw is used as cattle feed in South India; if it is bailed it can be used for this purpose. In an hour, one acre of land can be bailed using a bailer, whilst avoid all the pollution that is caused by burning.

The world population will grow by two billion people in the next 50 years; and The United Nations predicts we will need to grow more food in the next 50 years than was grown in the past 10,000 years. Clearly, it is mechanization of farming which has led to growth in scale of farming; this fact is undeniable. In the evolution process, mechanized-farming will give birth to more novel and safer techniques to provide for an ever-growing population.

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The Contents Page: Highlights PAAMA Rotovator as the first item on it

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