

ORGANIC FARMING: THE PERSPECTIVE

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Abstract

What exactly is the claim that genetically engineered (GE) foods are safe, that they will not have any adverse reactions in the human body after a long time, and that mutations will not produce any strange genes? GE foods can cause unforeseen allergies. Antibiotic-resistant bacteria can grow in the body. And most importantly, there is no way to understand which food has been used to make genetically engineered substances. Yet, 60-70 percent of the food on the shelves of American stores today contains genetically engineered substances. So the question comes back: We are eating, but what am I eating? Do we have the right to know what is in my food? This Bengal once showed India the way in agriculture; there was no other fertile and green soil like this Bengal in India. That is why at one time the British also understood its importance and chose this Bengal as the capital of the country. The famous historian AbulFazal wrote in his book 'Ain-e-Akbari' that the Mughals used to refer to Bengal as the paradise of India. But now, if we look at the farmers of Bengal, much of that paradise has deteriorated today. Although West Bengal still occupies a special place in agriculture like other states of India, But one thing is very sad: those who are still engaged in agriculture in West Bengal. Almost all of them are above forty years of age or older. No one from the new generation is seen coming forward in agriculture in such a way. The new generation is leaving their own land and either becoming migrant workers in other countries or sitting at home unemployed. Still, they are not taking up agriculture. But why is this reluctance? There are various reasons for that. For example, farmers work hard all year round, but they don't get a fair price for their crops. Apart from that, the prices of other things used in agriculture, such as fertilizers, pesticides, and seeds, are increasing rapidly. But the produced crops are being bought by middlemen at very low prices. A large part of the profit is going to them. Apart from this, various disasters are happening every year. Which are beyond the ability of the common farmer to deal with. As a result, they are facing losses every year. On the other hand, due to the increase in commodity prices, they are not able to rely solely on agricultural work. They are forced to earn income in other ways. That is why the new generation does not want to take so much risk in agriculture. Although the government has started buying only paddy at a fair price, it has not been able to do so for other crops. Which is very necessary. Along with that, the harm to the farmers is not less there. The right policy needs to be formulated. So that the farmers get a fair price for all crops.

Keywords: GE, antibiotic-resistant bacteria, 'Ain-e-Akbari'

Introduction

Tomatoes are a year-round need in modern cooking; unseasonable cauliflower makes our eyes sparkle, and fresh dolma is served in restaurants in December. Unseasonal crops have received excessive amounts of chemical fertilizer and pesticide treatment. Will we continue to ignore the threat posed by fatal illnesses? Our blood sugar levels are rising due to our avaricious consumption of all the nutrients in rice, much like jasmine blooms. When will we realize that potatoes aren't really vegetables? The difference between eating rice and potatoes is minimal. We're not sure if we're bothered by the fact that the people who grow food are the ones who suffer the most from half-killing, starvation, and misery. Bengalis understand that food is about more than just satisfying hunger; it's also about emotions, culture, and other factors. For this reason, there are numerous celebrations centered around food, ranging from PaushParvan to Choddashak and from rice harvest to rice harvesting. Did you know that the plants used to create onion-soaked lentils, which are now mostly imported from Canada and Australia, are killed with herbicides and then dried and dried again to facilitate harvesting? The firm that owns the pesticide, Monsanto, has lost multiple lawsuits due to the hazards of glyphosate. Your body frequently employs glyphosate instead of glycine to produce hormones and enzymes because it looks exactly like glyphosate; this gives it the appearance of insulin, but it is a fake!

Additionally, it is preferable to take moong, lentil, khesari, kalai, gram, and arhar instead of pulses simultaneously. This will ensure that you obtain all the required amino acids and prevent the seeds' inherent toxicity. In reality, kata-pona is a fish's dead body that is occasionally preserved with formalin. The dead body must be kept for five days for the Shraddha, sir—it even takes five days for a vehicle to come from Andhra! In large factories, chicks are killed using muriatic acid, the same substance we use to clean the toilet. Rice starch and milk-based soapy water. Malachite green, the essence of govindbhog, is used to color green beans. I witnessed firsthand how ten distinct potatoes from the market arrived in plastic bags, each of which was boiled in a large pot while still in its plastic container, making it obvious which potato belonged to whom! Tea and hot curries in plastic cups are poisonous because thin plastic releases heavy metals when heated above 60 degrees.

The Perspective

Every day, people consume at least five to six of these 10; your nutrition will be dependent on it. Remember that white rice, white oil, flour, salt, and sugar are all incredibly easy to digest, so the sugar enters your bloodstream right away! Consume complex foods such as mustard oil, thick red rice, shelled legumes, and wheat to maintain your health and fitness. This consumerist mindset has also led to the emergence of organic marketplaces. These days, some consumers purchase organic food from large retailers, malls, non-profit organizations, or small businesses owned by private individuals. Additionally, the number of them is growing for a variety of reasons, including fashion, certification, advertising, and awareness. Which criticisms are being discussed here? Using cow dung in place of artificial fertilizers is a rudimentary notion of organic farming. The term "organic" farming should not be used to describe farming that uses water from the earth, farming that uses cow dung, compost, or vermicompost that is brought from the market, soil that is brought from somewhere else, tractors or other non-renewable energy-powered equipment, or hybrid seeds that are brought from the market. In many Indian states, there has been a significant increase in food awareness. Naturally, the organic food

industry has a significant profile in megacities like Delhi. Everyone there is aware that organic items are certified and branded, and even in the farmer's market or agricultural market, the costs are prohibitive. Numerous hobby farmers have constructed farmhouses throughout the city and are setting up shop at the farmer's market. However, in Bangalore, Chennai, and Pune, in addition to the earthy but rickety (meaning you can obtain the true fragrance), Alongside the regular grocery stores, stores and markets have begun to appear throughout the community and on the club grounds. Large networks of organic food have been established by numerous NGOs and small traders, but farmers are not coming. Thankfully, during the past five years, Kolkata has finally woken up, but it is late. However, small businesses are reluctant to leave the haphazard, uncontrolled amateur system, just as there is still concern about generating a profit. Consuming organic food does not guarantee that it will be accepted by society or the environment.

For over ten years, numerous studies on this kind of agricultural technique have been carried out in different South Asian nations. Government and private organizations have supported and assisted farmers in a variety of experiments in China, Vietnam, and Thailand. Research and training on mixed farming of rice, fish, duck, Azolla, etc. are also being conducted concurrently by several farmers and universities in South Japan. Small-scale work has also been done in Bangladesh, India, and the Philippines, primarily by farmers working alone or with the assistance of a non-profit development or research organization. The universities in Tamil Nadu and Punjab have also conducted some studies. However, the government has not yet backed any special plan to restructure the entire farming system. The interests of agribusiness and agro-based enterprises continue to be the primary drivers of Indian agricultural policy, both at the federal level and in the states. Though no concrete steps are taken, there are sporadic meetings to enhance regional food security, preserve biodiversity, and raise the nutritional and health standards of growers and consumers. The flesh of the fish is what gives it its flavor. The fish's food is used to make it. Fish consume microorganisms, or zooplankton, which consume microplants or phytoplankton. The microplants transform from microbes to fish as a result of the river's pollution, which changes the minerals. Food is the building block of the body. This fish isn't that fish anymore because of it. In addition to pollution, humans are purposefully altering fish. By combining Rui and Katla and Katla and Mrigel, hybrid fish seeds are being created. These hybrid fish are more resilient to stress and less prone to illness. However, the flavor? "You will not get the same taste as before, even if you fish in the village pond with a rod." NishithBabu, dean of the University of Animal and Fisheries Sciences, is concerned that these hybrids would cause the indigenous fish lineage to go extinct. Fish births in ponds and other water bodies have declined as a result of pesticides, herbicides, and other pollutants in agricultural regions. Filtered by the river, little fish are going extinct. For a long time, fish fat has been accumulating heavy metals from contaminated water, such as lead, cadmium, and chromium, at levels greater than what is safe for human consumption.

There was a time when farmers in India were not used to using urea fertilizer in agriculture. Urea is a harmful chemical for us. Using urea fertilizer in agriculture can have several negative effects, including:

- Soil quality: Urea can reduce soil fertility and diversity of microbes. It can also cause soil acidification, which can harm soil biological processes.
- Crop quality: Urea can harm plants by releasing ammonium into the soil, which can create a toxic zone around the urea particle. This zone can kill seeds and seedling roots.
- Ecosystem: Urea can have negative effects on the ecosystem.

- Pests and insects: Urea can increase the amount of ammonia in the soil, which can damage plants.
- Nitrogen loss: Urea can lose nitrogen when it comes into contact with bare soil.
- Seed germination: Large amounts of urea can slow down or prevent seed germination.
- Waste: Urea has a high nitrogen content, so using too much can lead to waste.
- Tree killing: In fruit-producing areas, farmers often use a lot of urea, which can kill trees (Motasim et al., 2024).

The globe is currently producing more fruits, vegetables, and crops than it has ever produced in its history. The world is a global village now; you can obtain strawberries, peaches, and Kiwi fruit when you're sitting in Kolkata. Vegetable prices vary with the "season," but their visibility remains constant. Thirteen months of tomatoes and twelve months of cauliflower. However, the fear of food is progressively growing. According to the Manusamhita's twelfth chapter, adulterating grain entails chopping off the grain's hands and feet. Although the crime is evident, the punishment is not bad. Food contamination decreases as civilization advances. The grain supply has been contaminated by market adulteration. Pesticides are the antithesis of the Green Revolution. "After impregnating it, the chicken will eat it and die," a market vegetable vendor stated, holding a clump of coriander leaves in his lap. The milkman combined batasa, chalk, and arrowroot to stop the lactometer from detecting water-mixed milk. Ghee, mustard oil, Sajan juice, and chili powder were combined with sheep fat.

Recommendations

In West Bengal, a lot of farmers own less than an acre of land. Over half of the land is under cultivation, and farming families with ponds, homesteads, and paddy fields collectively own less than one acre of land. The majority of farmers are unable to invest more than 4,000 to 5,000 rupees per bigha; many also need to borrow this amount. After subtracting expenses, they receive a little surplus even though they produce paddy two or three times a year (if there is no drought or flood). Nearly every agricultural family has a cow or calf, ten to twelve chickens, and one or two goats. Tribals and scheduled castes have two or three pigs instead of cows in arid regions, and most families in clay soil areas have a small pond that is typically two and a half to three hundred square feet in size. At least five or six different kinds of cereals, pulses, or oilseeds; ten or twelve different kinds of vegetables; five or six different kinds of fruit trees; five or six different kinds of trees or bushes that are used as fuel, cow fodder, etc.; at least five or six different kinds of spices; herbal medicinal plants; at least five or six different kinds of animals; three or four different kinds of birds, insects, and fish, etc., can all be used to provide food and income for a year. Less material should be bought from outside sources, both in terms of amount and number. Fish and poultry brooders, fence plants, seeds, and fertilizers should all be produced in the community. Every 25 to 30 families should have one or two pioneers who would spearhead this kind of endeavor. A number of actions should be taken to save land and collect water; topsoil washing and rainwater runoff should be minimized. Every organic waste from houses, barns, and farms that is burned or thrown away needs to be put to some use. If it can be used repeatedly, that is ideal. For instance, animal and bird waste can be utilized to create "biogas" first, with some of the liquid "slurry" being used as fish food and the remainder being used as fertilizer for rice fields or vegetable crops. Animal waste should be used, but so should their natural characteristics. Animals can perform a variety of tasks for free if they are connected at the appropriate moment and in sufficient quantities. For instance, releasing local ducks and insect-eating predatory fish into a paddy field can kill weeds, fertilize, supply oxygen to the

water, shake the paddy plants, and chase insects away. Similarly, releasing hens into an orchard helps fertilize and eradicate insects and weeds. Rapidly growing, abundant, and carefree items, like Kachuripana and other aquatic weeds, such as Bark, Chakunda, Telakucha, Thorn, Bethoshak, and others, should be processed properly before being fed to people, animals, fish, and ducks. It is advisable to plant trees and vines that yield a lot of green leaves and grow rapidly. It can be utilized as fuel, animal feed, and soil food. These trees include Gliricidia, Subabul, Jayanti, Kanchan, Desi Arohar, Bamboo, and others. Some processing should be done when selling from the field rather than selling the raw material directly. This will help to improve the pricing and keep the organic waste in the village. Some instances of this include selling mangoes as is, producing and selling fruit juice, and producing oil from neem, Karanja, castor, etc., in the village itself. The use of single chemical fertilizers like urea, superphosphate, ammonium nitrate, and muriate of potash is eliminated in intensive or integrated agricultural systems, as is the use of synthetic chemical poisons. Small amounts of mixed synthetic chemicals, like DAP, NPK, etc., can be added to organic fertilizers; however, their use should be gradually decreased. Wood ash, limestone, rock phosphate, and other materials can be utilized as needed. Biofertilizers, green manures, liquid manures, vermicompost, shells of different oil seeds, ash of different medicinal plants and weeds, organic fungicides, etc. are all produced and used locally with special attention.

Fruits and vegetables that are out of season must be avoided. They have been grown using a lot of chemical fertilizers or are frequently maintained using a lot of chemicals. Eating fruits and vegetables in season is preferable. When we go shopping, we need to shift our attention. Vegetables that are bright green do not always indicate that they are fresh. The likelihood that they have been colored is high. Vegetables can be fresh even if they are pale. Chemical levels are low in fruits and vegetables that are stained or infected with insects. To get rid of most of the bacteria or fungus on the surface of vegetables, we should wash them in water that has been dissolved with potassium permanganate. Use one pinch of baking soda in one liter of water to wash vegetables with it to remove pesticides like folidol that adhere to them. The toxins accumulating in the fat of giant fish damage our systems in the same way that their fat raises cholesterol. Eating small to medium-sized fish is preferable. Compared to cow's milk, dairy milk is safer. Dairy farmers sometimes add dangerous amounts of caustic soda to milk for long-term preservation. Eating natural veggies that you grow without cultivation, such as Brahmi, Shushani, Beto, Kantante, etc., is preferable. If you want to be extra cautious, you can kill the insects on the vegetables by cooking them in a little salt water. Because they are given handmade food rather than store-bought, eating native chicken and native duck eggs reduces the amount of chemicals that enter the body.

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