Market is the place to decide Terminator's usefulness

WORLD AGRICULTURE is in the throes of a technological resolution, in a manner as has been seen before. This resolution typifies a kind of biotechnology that is now being applied to the management of genetically engineered crop plants and microorganisms. He is in the know of this 'Terminator' technology and he has written an article on it. In a recent article in *Chemical & Engineering News*, he has analyzed some of the issues relating to the technology.

What is the mechanism of this Terminator technology?

The Terminator is an unattractive choice of expression given to an ingenious and clever application of fingerprint-based research efforts aimed at understanding fundamental mechanisms of plant gene structure, function, and expression. This technology, called "Control of Plant Gene Expression" by its inventor, consists of a set of genes that are expressed in a controlled and co-ordinated fashion. These genes code for a toxin that is toxic to the embryo of seeds that carry them.

This patented technology, which is the "Terminator" technology, has seen much debate in the Indian context. Some critics have been vocal in their opposition and have raised concerns about the potential harm to crops and the environment. Others have highlighted the potential benefits of this technology in improving crop yields and reducing the need for chemical pesticides.

Sivaramah Shantharam, a leading expert in agricultural biotechnology, argues that this technology is not yet ready for commercialization. He suggests that more research is needed before it can be considered for use in the field.

**Commodity Chat**

**WITH SIVARAMAH SHANTHARAM**

**What would be the major beneficiaries of this technology?**

The major beneficiaries of this technology will likely be farmers, as it will allow them to grow crops without worrying about the survival of their seeds. This will reduce the need for additional inputs and increase the overall efficiency of crop production.

**What could be the negative fallout to the farmers who no longer need seeds?**

The application of this technology will not be able to adapt to new pests, and the plants produced may not be as resilient as those grown from traditional seeds.

**How can this technology provide a fillip to the creation of better yielding varieties of self-pollinated crops such as rice, wheat, sorghum, soy, and so on?**

This technology is also being touted as a "technology protection system" by its developers. It can be used to create new varieties and improve the yield of crops without the need for seeds.

**What does the market price of the Terminator technology reveal?**

The market price of the Terminator technology is not yet available, as it has not been widely adopted or marketed. However, it is expected to be a significant investment for farmers who want to adopt this technology.

**Is the Terminator technology safe?**

The Terminator technology is not yet deemed safe by the regulatory bodies, and further research is needed to ensure its safety before it can be widely adopted.

**What is the justification for the perceived threats of unintended contamination of neighbouring fields or even the wild relatives of cultivated crops?**

As far as I can see, there is no evidence of unintended contamination of crops grown using the Terminator technology. However, further research is needed to ensure its safety before it can be widely adopted.