

Media Coverage

http://www.ptinews.com/pressrelease/21080_press-subImpacting-Farmers--Lives-Through-Science

Impacting Farmers' Lives Through Science

NEW DELHI, October 26, 2016/PRNewswire/ -

- Small Farmers, Particularly Women, Empowered by Science: Biotech-KISAN

- Taking Indigenous Livestock to New Heights: Cattle Genomics

Over a series of meetings this year, the Hon'ble Prime Minister has pushed the development of programmes that aim to directly and positively impact people's lives rapidly. The Ministry of Science and Technology has been at the forefront in many of these initiatives.

Two of the Farmer-centric initiatives are highlighted here and are one major thrust. Meetings on other thrusts will follow.

The Department of Biotechnology, Ministry of Science and Technology, Government of India organized a press conference on 26th October 2016 at the CSIR Science Centre, New Delhi.

The theme was 'Impacting Farmers' Lives through Science' and highlighted two major new programmes:

1. **Biotech-KISAN**
2. **Cattle Genomics**

Hon'ble Minister for Science and Technology and Earth Sciences, **Dr. Harsh Vardhan** presided over the press conference and shared details on the these new initiatives which are intended to have major impact on rural livelihood through science. Prof. K. VijayRaghavan, Secretary, DBT, and other senior DBT officials were present at the event.

Biotech- KISAN (Biotech-Krishi Innovation Science Application Network)

Empowering Small and Women-farmers with Science Implementation

The Prime Minister has emphasised that it is important for scientists to work on the problems being faced by our farmers. Biotech-KISAN is a new programme that

empowers farmers, especially women. Cash crops and horticulture can be a major source of income but the vagaries of climate, disease and market often prevent this. Farmers are eager to grab scientific tools that can mitigate these factors. The Department of Biotechnology is partnering to stimulate these exciting directions.

The Scheme is for farmers, developed by and with farmers, empowers women, impacts locally, connects globally, is pan-India, has a hub-and-spoke and stimulates entrepreneurship and innovation in farmers.

Biotech-KISAN is:

- J **For Farmers.** The Biotech-KISAN is a farmer-centric scheme launched by of the Department of Biotechnology, where scientists will work in sync with farmers to understand problems and find solutions.
- J **By Farmers,** working with Scientists. This scheme is developed in consultation with the farmers. Soil, water, seed and market are the some key points that concern small and marginal farmers. Biotech-KISAN aims to link farmers, scientists and science institutions across the country in a network that identifies and helps solve their problems in a cooperative manner.
- J **Empower women.** The woman farmer is often neglected. It is important to empower the women farmer, help them meet their concerns for better seed, storage of seed and protection of the crops from disease and pest. The women farmer are also the prime caretakers of livestock and are eager to combine traditional wisdom in handling the livestock and with current best practices, especially in the context of emerging livestock disease. The scheme includes fellowships, the Mahila Biotech- KISAN fellowships, for women farmers for training and education in farm practices. We hope to be able to also support her in her small enterprise, making her a women farmer entrepreneur, the grass root innovator.
- J **Connects Globally.** Biotech-KISAN will connect farmers to best global practices; training workshops will be held in India and other countries. Farmers and Scientists will partner across the globe.
- J **Impacts Locally.** The scheme is targeted towards the least educated marginalised farmer; Scientists will spend time on farms and link communication tools to soil, water seed and market. The aim is to understand individual problems of the smallholding farmers and provide ready solutions.
- J **Across India.** Biotech KISAN will connect farmers with science in the 15 agro-climatic zones of the country in a manner, which constantly links problems with available solutions.
- J **Hubs-and-Spoke.** In each of these 15 regions, a Farmer organisation will be the hub connected to different science labs, Krishi Vigyan Kendra and State Agriculture Universities co-located in the region. The hub will reach out to the farmers in the region and connect them to scientists and institutions.

- J) **Farmers as Innovators.** The hub will have tinkering lab, communication cell and will run year-long training, awareness, workshops and which will act as education demonstration units to encourage grass root innovation in the young as well as women farmers.
- J) **Communicating Best Practises** There will be a communication set-up to make radio and TV programmes for local stations, as well as daily connectivity through social media.

Cattle Genomics

- Indigenous Livestock to Pole Position

- Climate Change raises huge challenges for small farmers, for whom livestock is a lifeline.

- Genomic selection will ensure high-yielding, disease-resistant, resilient livestock.

Livestock is a Lifeline. Livestock contributes significantly to the livelihood of rural poor in our country and has enormous potential to reduce poverty. There is a predicted increase in demand for animal food products in India by 2020. In the wake of climate change challenges, quality breeding of indigenous livestock is essential. When breeding is selective, our native livestock can transform the lives of small farmers.

Selecting Hardy Livestock That Give High-yields. Better livestock can be genetically, selected which ultimately leads to enhancement of productivity in a sustainable, resilient manner.

Traditional Breeding Takes Time. Genetic improvement of livestock through traditional selection for increasing livestock productivity has major limitations. To overcome these, genomic selection has played a crucial role in livestock industry globally.

Global Best Methods for Local Livestock. Our aim is to develop these tools for our native livestock.

Genomic Selection will transform local livestock breeding. This uses information on variation in DNA sequences between animals to predict the breeding value of animals more accurately.

Genome Sequencing of Indigenous Cattle Breeds from all registered cattle breeds of India by involving various stakeholders starting immediately.

Development of High-density DNA Chips. This will reduce the cost and time interval of breeding programme in future and productivity of indigenous cattle will be enhanced.

<http://www.news18.com/news/tech/government-adds-biotech-genomics-programmes-to-connect-farmers-directly-with-scientists-1305598.html>

Government Adds Biotech, Genomics Programmes to Connect Farmers Directly With Scientists



Representative image. (Image: REUTERS)

To apply science to boost rural economy, the government has launched two new programmes -- Biotech-KISAN and Cattle Genomics.

Union Science and Technology Minister Harsh Vardhan said the intent of the programmes is to form a network to farmers directly with the scientists and experts.

The Minister in his address here said the Prime Minister's emphasis "on the importance to work on the problems faced by our farmers is a great motivation factor for the scientist community".

"The Prime Minister has emphasised that it is important for scientists to work on the problems being faced by our farmers. Biotech-KISAN is a new programme that empowers farmers, especially women farmers," the Minister said.

The second programme 'Cattle Genomics' will focus on livestock yield. Explaining Biotech-KISAN (Krishi Innovation Science Application Network), the Minister said the programme focuses on the small, least educated marginalised farmers and women farmers.

"The scientists will spend time on farms and link communication tools to soil, water seed and market. The aim is to understand individual problems of the small holding farmers and provide ready solutions," the Minister said.

Women farmers will be offered fellowships for training under the scheme.

This scheme will connect farmers with science in the 15 agro-climatic zones. In each of these 15 regions, a farmer organisation will be the hub connected to different science labs, Krishi Vigyan Kendra and State Agriculture Universities co-located in the region.

The hub will reach out to the farmers in the region and connect them to scientists and institutions. The minister added that the network will have a communication cell to make radio and TV programmes.

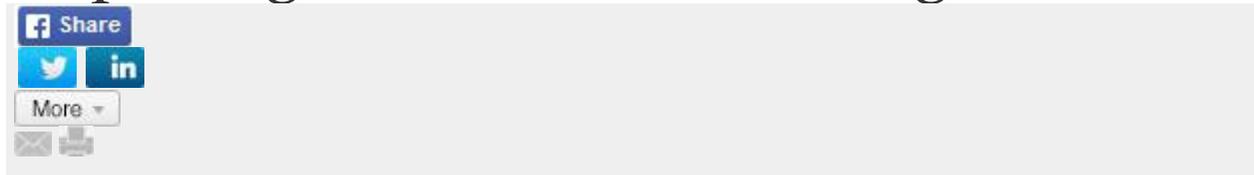
Adding the demand for animal food products in India will increase by 2020, the minister said that the second programme Cattle Genomics would focus on selective breeding of the native livestock. Officials of Biotechnology department said that genomic selection will ensure high-yielding, disease-resistant, resilient livestock.

"Traditional Breeding takes time. Genetic improvement of livestock through traditional selection for increasing livestock productivity has major limitations. To overcome these, genomic selection has played a crucial role in livestock industry globally," the department said in a statement.

Under this programme, a high-density DNA chips will be developed to reduced the cost and time interval of breeding.

<http://www.prnewswire.co.in/news-releases/impacting-farmers-lives-through-science-598666031.html>

Impacting Farmers' Lives Through Science



NEW DELHI, October 26, 2016 /PRNewswire/ --

- **Small Farmers, Particularly Women, Empowered by Science: Biotech-KISAN**

- **Taking Indigenous Livestock to New Heights: Cattle Genomics**

Over a series of meetings this year, the Hon'ble Prime Minister has pushed the development of programmes that aim to directly and positively impact people's lives rapidly. The Ministry of Science and Technology has been at the forefront in many of these initiatives.

Two of the Farmer-centric initiatives are highlighted here and are one major thrust. Meetings on other thrusts will follow.

The Department of Biotechnology, Ministry of Science and Technology, Government of India organized a press conference on 26th October 2016 at the CSIR Science Centre, New Delhi.

The theme was 'Impacting Farmers' Lives through Science' and highlighted two major new programmes:

1. **Biotech-KISAN**
2. **Cattle Genomics**

Hon'ble Minister for Science and Technology and Earth Sciences, **Dr. Harsh Vardhan** presided over the press conference and shared details on these new initiatives which are intended to have major impact on rural livelihood through science. Prof. K. VijayRaghavan, Secretary, DBT, and other senior DBT officials were present at the event.

Biotech- KISAN (Biotech-Krishi Innovation Science Application Network)

Empowering Small and Women-farmers with Science Implementation

The Prime Minister has emphasised that it is important for scientists to work on the problems being faced by our farmers. Biotech-KISAN is a new programme that empowers farmers, especially women. Cash crops and horticulture can be a major source of income but the vagaries of climate, disease and market often prevent this. Farmers are eager to grab scientific tools that can mitigate these factors. The Department of Biotechnology is partnering to stimulate these exciting directions.

The Scheme is for farmers, developed by and with farmers, empowers women, impacts locally, connects globally, is pan-India, has a hub-and-spoke model and stimulates entrepreneurship and innovation in farmers.

Biotech-KISAN is:

-) **For Farmers.** The Biotech-KISAN is a farmer-centric scheme launched by of the Department of Biotechnology, where scientists will work in sync with farmers to understand problems and find solutions.
-) **By Farmers,** working with Scientists. This scheme is developed in consultation with the farmers. Soil, water, seed and market are the some key points that concern small and marginal farmers. Biotech-KISAN aims to link farmers, scientists and science institutions across the country in a network that identifies and helps solve their problems in a cooperative manner.
-) **Empower women.** The woman farmer is often neglected. It is important to empower the women farmer, help them meet their concerns for better seed, storage of seed and protection of the crops from disease and pest. The women farmer are also the prime caretakers of livestock and are eager to combine traditional wisdom in handling the livestock and with current best practices, especially in the context of emerging livestock disease. The scheme includes fellowships, the Mahila Biotech- KISAN fellowships, for women farmers for training and education in farm practices. We hope to be able to also support her in her small enterprise, making her a women farmer entrepreneur, the grass root innovator.
-) **Connects Globally.** Biotech-KISAN will connect farmers to best global practices; training workshops will be held in India and other countries. Farmers and Scientists will partner across the globe.
-) **Impacts Locally.** The scheme is targeted towards the least educated marginalised farmer; Scientists will spend time on farms and link communication tools to soil, water seed and market. The aim is to understand individual problems of the smallholding farmers and provide ready solutions.
-) **Across India.** Biotech KISAN will connect farmers with science in the 15 agro-climatic zones of the country in a manner, which constantly links problems with available solutions.
-) **Hubs-and-Spoke.** In each of these 15 regions, a Farmer organisation will be the hub connected to different science labs, Krishi Vigyan Kendra and State Agriculture Universities co-located in the region. The hub will reach out to the farmers in the region and connect them to scientists and institutions.
-) **Farmers as Innovators.** The hub will have tinkering lab, communication cell and will run year-long training, awareness, workshops and which will act as education demonstration units to encourage grass root innovation in the young as well as women farmers.
-) **Communicating Best Practises** There will be a communication set-up to make radio and TV programmes for local stations, as well as daily connectivity through social media.

Cattle Genomics

- **Indigenous Livestock to Pole Position**

- **Climate Change raises huge challenges for small farmers, for whom livestock is a lifeline.**

- **Genomic selection will ensure high-yielding, disease-resistant, resilient livestock.**

Livestock is a Lifeline. Livestock contributes significantly to the livelihood of rural poor in our country and has enormous potential to reduce poverty. There is a predicted increase in demand for animal food products in India by 2020. In the wake of climate change challenges, quality breeding of indigenous livestock is essential. When breeding is selective, our native livestock can transform the lives of small farmers.

Selecting Hardy Livestock That Give High-yields. Better livestock can be genetically, selected which ultimately leads to enhancement of productivity in a sustainable, resilient manner.

Traditional Breeding Takes Time. Genetic improvement of livestock through traditional selection for increasing livestock productivity has major limitations. To overcome these, genomic selection has played a crucial role in livestock industry globally.

Global Best Methods for Local Livestock. Our aim is to develop these tools for our native livestock.

Genomic Selection will transform local livestock breeding. This uses information on variation in DNA sequences between animals to predict the breeding value of animals more accurately.

Genome Sequencing of Indigenous Cattle Breeds from all registered cattle breeds of India by involving various stakeholders starting immediately.

Development of High-density DNA Chips. This will reduce the cost and time interval of breeding programme in future and productivity of indigenous cattle will be enhanced.

http://www.business-standard.com/article/pti-stories/to-boost-production-govt-to-undertake-genome-sequencing-of-116102601257_1.html

Business Standard

To boost production, govt to undertake genome sequencing of

Press Trust of India | New Delhi October 26, 2016 Last Updated at 19:08 IST

ALSO READ

Global team cracks decodes complete DNA sequence of groundnut
Bosch and Maker Village to host "Bosch DNA Grand Challenge"
DNA report of child swapping case submitted to HCDNA test reveals boy not delivered by woman who laid claim
Baby-selling racket: Police to send blood samples for DNA test

In a move aimed at boosting production and predicting the breeding value of desi cow more accurately, the government has undertake an ambitious project of genome sequencing of 40 breeds of indigenous cattle.

The 'Cattle Genomics' project, to be carried out by the Department of Bio-technology under the Ministry of Science and Technology, will also see development of DNA chips of these breeds which will help understand various traits of the cattle specie.

"Genetic improvement of livestock through traditional selection for increasing productivity has major limitations. To overcome this, genomic selection has played a crucial role in livestock industry globally.

"At present genome sequencing has only been done for European species like Jersey and Holstein Friesians cows, but not for native cattle," said Mohd Aslam, senior scientist and Advisor with the DBT.

Another scientist associated with the programee said there are nearly 40 known breeds of cows in India with different traits. Some show high resistance to diseases while some have better milk production capacity.

"Genome selection will transform livestock breeding, which uses information on variations in DNA sequences between animals to predict the breeding value more accurately.

"The semen of these animals could be used for breeding cattle," the scientist said.

The project, which will initially do genome sequencing of cows, will also carry out a similar exercise on buffaloes.

Apart from it Harsh Vardhan also launched Biotech-Kisan initiative, where farmers, scientists and science institutions across the country will work as a network that will identify and help solve problems in a cooperative manner.

The scheme also includes fellowships for women farmers for training and education in farm practices.

The minister said, to start with the Biotech Kisan project will be launched in four agro-climatic zones in the country, namely East and West Himalayas, the Upper Gangetic region and Southern plateau and hills. There are 15 agro-climatic zones in the country.

"The Prime Minister intends to increase income of farmers by 2022 and these are initiatives which the government is taking to realise the goals," Vardhan said.

(This story has not been edited by Business Standard staff and is auto-generated from a syndicated feed.)

http://www.business-standard.com/article/news-ians/government-starts-programmes-to-connect-farmers-to-lab-116102601613_1.html

Government starts programmes to connect farmers to lab

IANS | New Delhi October 26, 2016 Last Updated at 22:20 IST

ALSO READ

Bengal government starts dismantling Nano factory sheds
NCDEX to connect 50,000 farmers to markets this year
No plans for vegetarian hotel management programmes: Government
Growth of IT manufacturing crucial for government programmes: MAIT
Modi invites people to take quiz on government programmes

To apply science to boost rural economy, the government on Wednesday announced the launch of two new programmes -- Biotech-KISAN and Cattle Genomics.

Union Science and Technology Minister Harsh Vardhan said the intent of the programmes is to form a network to farmers directly with the scientists and experts.

The Minister in his address here said the Prime Minister's emphasis "on the importance to work on the problems faced by our farmers is a great motivation factor for the scientist community".

"The Prime Minister has emphasised that it is important for scientists to work on the problems being faced by our farmers. Biotech-KISAN is a new programme that empowers farmers, especially women farmers," the Minister said.

The second programme 'Cattle Genomics' will focus on livestock yield. Explaining Biotech-KISAN (Krishi Innovation Science Application Network), the Minister said the programme focuses on the small, least educated marginalised farmers and women farmers.

"The scientists will spend time on farms and link communication tools to soil, water seed and market. The aim is to understand individual problems of the small holding farmers and provide ready solutions," the Minister said.

Women farmers will be offered fellowships for training under the scheme.

This scheme will connect farmers with science in the 15 agro-climatic zones. In each of these 15 regions, a farmer organisation will be the hub connected to different science labs, Krishi Vigyan Kendra and State Agriculture Universities co-located in the region.

The hub will reach out to the farmers in the region and connect them to scientists and institutions. The minister added that the network will have a communication cell to make radio and TV programmes.

Adding the demand for animal food products in India will increase by 2020, the minister said that the second programme Cattle Genomics would focus on selective breeding of the native livestock. Officials of Biotechnology department said that genomic selection will ensure high-yielding, disease-resistant, resilient livestock.

"Traditional Breeding takes time. Genetic improvement of livestock through traditional selection for increasing livestock productivity has major limitations. To overcome these, genomic selection has played a crucial role in livestock industry globally," the department said in a statement.

Under this programme, a high-density DNA chips will be developed to reduced the cost and time interval of breeding.

<http://www.biovoicenews.com/impacting-farmers-lives-through-science-biotech-kisan-cattle-genomics/>

Impacting farmers' lives through science: Biotech-Kisan & cattle genomics

The two programs spearheaded by the Department of Biotechnology are intended to have major impact on rural livelihood through science



The Union Minister for Science & Technology, Dr Harsh Vardhan addressing the press conference on Impacting People's Lives through Science, in New Delhi on October 26, 2016. The Secretary, Department of Biotechnology, Dr K Vijayaraghavan is also seen.

New Delhi: As a part of the Government's focus on the development of programmes that aim to directly and positively impact people's lives rapidly, the Ministry of Science and Technology has been at the forefront in many of these initiatives. Two Farmer-Centric initiatives of this Ministry are Biotech-KISAN and Cattle Genomics.

The Minister for Science and Technology, Dr Harsh Vardhan shared details on these new initiatives with the Press in New Delhi on October 26, 2016. The two programs are intended to have major impact on rural livelihood through science. The Minister in his address stated that the Prime Minister's emphasis on the importance to work on the problems faced by our farmers is a great motivation factor for the scientist community.

Biotech- KISAN (Krishi Innovation Science Application Network) is a new programme that empowers farmers, especially women farmers. Cash crops and horticulture can be a major source of income but the vagaries of climate, disease and market often prevent this. Farmers are eager to use scientific tools that can mitigate these factors. The Department of Biotechnology is partnering to stimulate these exciting directions.

The scheme is for farmers, developed by and with farmers, it empowers women, impacts locally, connects globally, is Pan-India, has a hub-and spoke model and stimulates entrepreneurship and innovation in farmers.

Biotech-KISAN is:

-) For Farmers: The Biotech-KISAN is a Farmer centric scheme launched by of the Department of Biotechnology, where scientists will work in sync with farmers to understand problems and find solutions.
-) By Farmers: Developed in consultation with the farmers. Soil, Water, Seed and Market are some key points that concern small and marginal farmers. Biotech-KISAN aims to link farmers, scientists and science institutions across the country in a network that identifies and helps solve their problems in a cooperative manner.
-) Empower women. The woman farmer is often neglected. It is important to empower the women farmer, help her meet her concerns for better seed, storage of seed and protection of the crops from disease and pest. The women farmer is also the prime caretaker of livestock and she is eager to combine traditional wisdom in handling the livestock and with current best practices, especially in the context of emerging livestock disease. The scheme includes the Mahila Biotech-KISAN fellowships, for training and education in farm practices, for women farmers. The Scheme also aims to support the women farmers/ entrepreneur in their small enterprises, making her a grass root innovator.
-) Connects Globally. Biotech-KISAN will connect farmers to best global practices; training workshops will be held in India and other countries. Farmers and Scientists will partner across the globe.
-) Impacts Locally. The scheme is targeted towards the least educated marginalised farmer; Scientists will spend time on farms and link communication tools to soil, water seed and market. The aim is to understand individual problems of the smallholding farmers and provide ready solutions.
-) Across India. Biotech KISAN will connect farmers with science in the 15 agro-climatic zones of the country in a manner, which constantly links problems with available solutions.
-) Hubs and Spoke. In each of these 15 regions, a Farmer organisation will be the hub connected to different science labs, Krishi Vigyan Kendra and State Agriculture Universities co-located in the region. The hub will reach out to the farmers in the region and connect them to scientists and institutions.
-) Farmers as Innovators. The hub will have tinkering lab, communication cell and will run year-long training, awareness, workshops and which will act as education demonstration units to encourage grass root innovation in the young as well as women farmers.
-) Communicating Best Practises There will be a communication set-up to make radio and TV programmes for local stations, as well as daily connectivity through social media.

Cattle Genomics: Taking Indigenous Livestock to Pole Position

Livestock contributes significantly to the livelihood of rural poor in our country and has enormous potential to reduce poverty. There is a predicted increase in demand for animal food products in India by 2020. In the wake of climate change challenges, quality breeding of indigenous livestock is essential. When breeding is selective, the native livestock can transform the lives of small farmers. Genomic selection will ensure high-yielding, disease-resistant, resilient livestock.

Selecting hardy livestock that give high-yields. Better livestock can be genetically, selected which ultimately leads to enhancement of productivity in a sustainable, resilient manner.

Traditional Breeding takes time. Genetic improvement of livestock through traditional selection for increasing livestock productivity has major limitations. To overcome these, genomic selection has played a crucial role in livestock industry globally.

Global best methods for local livestock. Genomic selection will transform local livestock breeding. This uses information on variation in DNA sequences between animals to predict the breeding value of animals more accurately.

Genome sequencing of indigenous cattle breeds from all registered cattle breeds of India by involving various stakeholders is to start soon.

Development of high-density DNA chips. This will reduce the cost and time interval of breeding program in future and productivity of indigenous cattle will be enhanced.

<http://paper.hindustantimes.com/epaper/viewer.aspx>