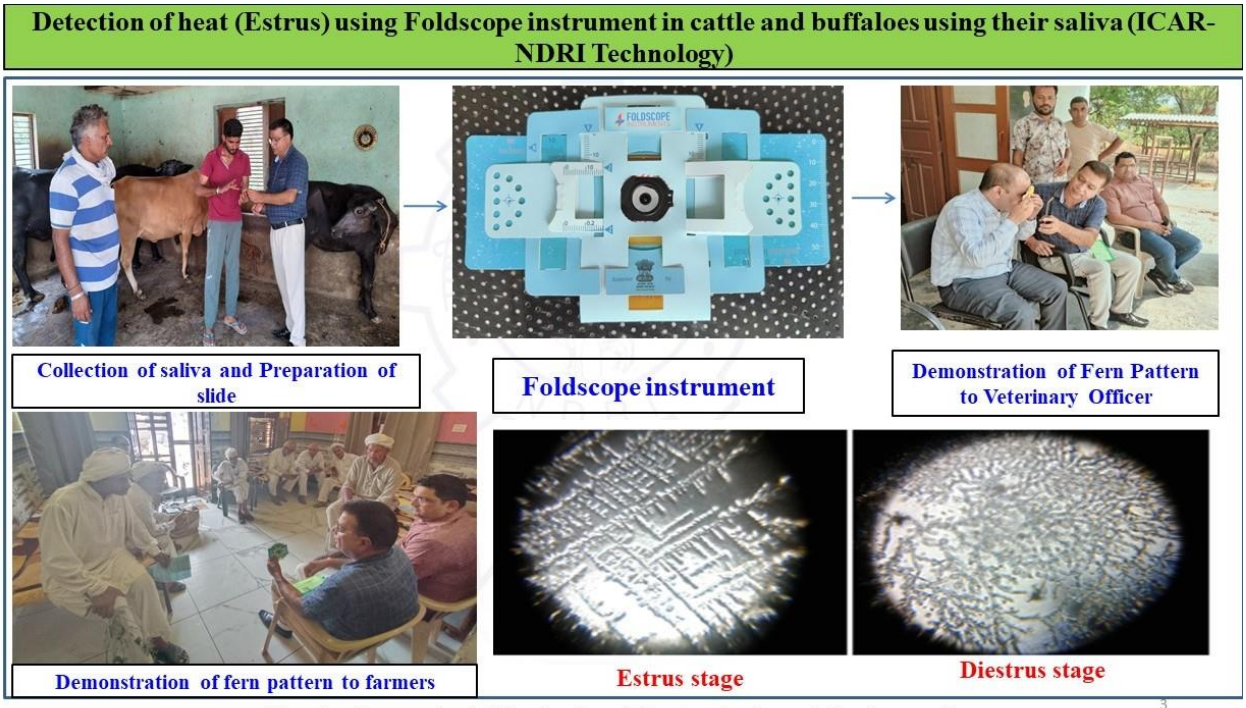
Parthenium Awareness programme cum Animal Health camp organization

22nd August 2025

The Farmer FIRST Project (FFP), ICAR-CSSRI, Karnal team organized a farmers-scientist interface meeting-cum-Animal Health Camp and Parthenium awareness programme at Kathura Village on 22nd August 2025. The program was led by Dr. Rajkumar, (PI), and Dr. Sohanvir Singh, (Co-PI). This programme was organized to engage farmers and demonstrate innovative livestock technologies aimed at improving productivity and livelihoods. Following events were completed in this programme.

Veterinary Hospital Visit and Foldscope Demonstration

FFP team visited the veterinary hospital, where the team met with the veterinary officer. A key highlight was the demonstration of the Foldscope instrument, a portable paper microscope, used to diagnose heat (estrus) in cattle and buffaloes. This technique, including saliva examination, helps in timely detection of heat periods, assisting farmers in managing reproductive cycles effectively and improving livestock breeding outcomes.



Parthenium Awareness Week Celebration

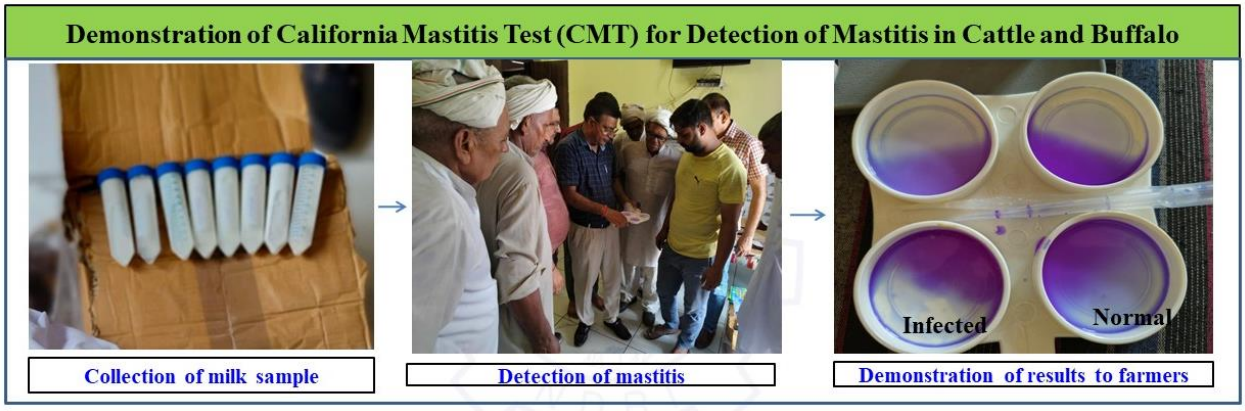
The FFP team joined farmers in celebrating *Parthenium* Awareness Week to educate the community about the invasive *Parthenium* weed, which poses threats to agriculture and health. Dr. Rajkumar highlighted the harmful effects of *Parthenium* like skin allergy (dermatitis), high fever and asthma in human beings and stressed the need to manage this weed an integrated mode *i.e* through mechanical, cultural and biocontrol methods. Parthenium besides hampering crop production becoming nuisance in non-cropped areas like residential areas, parks, road sides, railway tracks, he emphasized. He also briefed about impact of *Parthenium* on soil productivity and biodiversity. FFP team along with farmers participated in uprooting of *Parthenium* plants from road sides.

Distribution of Napier Grass and Animal Supplements

In line with promoting better livestock nutrition, Napier Grass saplings were distributed among the farmers to encourage cultivation of this high-yield, nutritious fodder crop. Alongside, pamphlets were provided with information on best practices for fodder management. Animal supplements including mineral mixtures and anionic mixtures were also distributed. These supplements strengthen the immune system of dairy animals, enhance milk production, and reduce nutritional deficiencies. The mineral mixture, prepared using a village-level mineral mixture machine introduced by Farmer FIRST, was explained in detail by Dr. Sohanvir Singh. The benefits of bypass fat (Bergafat) supplementation and addition of urea to fodder for enhanced nutrient availability were also discussed.

Mastitis Diagnosis Using CMT Kit

As part of animal health monitoring, milk samples were collected from cattle and buffaloes of participating farmers to screen for mastitis, a common and economically significant udder infection in dairy animals. The diagnosis was performed using the California Mastitis Test (CMT), a rapid, cow-side test useful to detect subclinical mastitis that otherwise might go unnoticed. Dr. Sohanvir Singh used the California Mastitis Test (CMT) kit, a simple on-field diagnostic tool, to detect subclinical mastitis and demonstrate results from milk samples collected from farmers. Farmers were also educated on proper sample collection and CMT usage to encourage routine mastitis screening at the village level. Positive cases of mastitis were advised to be followed by veterinary consultation for precise diagnostic testing and appropriate therapeutic interventions. Milk samples were also collected for detection of mastitis by measuring somatic cell counts in milk at laboratory of ICAR-NDRI, Karnal. Results obtained in laboratory were shared with farmers.



Visit to Date Palm Research Trial

The visit culminated with the FFP team observing ongoing research at the Date Palm research trial site. This presented an opportunity for farmers to see practical applications of advanced horticultural research and discuss potential benefits for diversification and income enhancement.

This comprehensive engagement provided farmers with direct access to scientific knowledge and technologies related to livestock health, fodder quality, weed management, and crop innovation. The collective activities-veterinary demonstrations, awareness campaigns, input distributions, health screening, and research exposure-aimed at improving farming efficiency, animal

productivity, and socio-economic conditions in Kathura Village. The Farmer FIRST Project continues to foster collaborative learning and technology adoption critical for sustainable agricultural development in the region. This visit reinforced the Farmer FIRST initiative's commitment to empowering farmers through integrated scientific interventions in both crop and livestock domains, enhancing resilience and livelihood security.