

- To formulate optimum sampling plan for CCEs.
- To provide yield estimates at block level.
- To develop/evaluate an approach/index for index-based insurance.

The pilot study was carried out in 4 districts (1 district each) in 4 States (Haryana, Karnataka, Madhya Pradesh and Maharashtra) during Kharif 2015 and 8 districts (2 districts each) during Rabi 2015-16 season for rice, wheat and Rabi sorghum crops. Perennial horticultural crops like apple, pear, mango, peach etc. are not considered under this pilot study due to issues like multipicking nature of these crops and non-availability of past yield data. Hence, Himachal Pradesh was not included in the study for these crops.

Shortage of organic manure for farming

185. SHRI SAMBHAJI CHHATRAPATI: Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

(a) whether it is a fact that mechanization of farming has led to a decrease in domestication of cattle by farmers resulting in insufficient availability of cow dung manure for farming;

(b) whether cow dung manure has scientifically proved to be better than chemical fertilizers for crops and soil both; and

(c) the special incentives Government has planned to meet the shortage for domestication of cattle by farmers in large number, not only to have milk and its byproducts, but also organic manure in sufficient quantity to be used in agriculture?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FARMERS WELFARE (SHRI PARSHOTTAM RUPALA): (a) As per the country's census record, the cattle population is increased from 155.3 million (1951) to 190.90 million (2012). The cattle population in different years is enclosed as Statement (*See below*). Taking into consideration of decreasing trend of cattle population 204.58 million (1992) to 190.90 million (2012) there is minor impact observed on domestication of cattle by farmers which may be due to farm mechanization as one of the reason.

(b) As per the study of ICAR, the response to the fertilizers could be raised significantly with balanced application of fertilizer nutrients along with organic manures. The average response ratios (kg grain/kg nutrient) were 8.1, 10.1, 12.8 and 15.2 respectively under N, NP, NPK and NPK+FYM. Besides, it corrects micro and secondary nutrient deficiencies in soils, enhances nutrient-use efficiency, maintains soil health and enhances crop yields and farmers' profitability.

The organic materials most commonly used which include Farm Yard Manure (FYM), animal wastes, crop residues, urban organic wastes, green manures, bio-gas

spent slurry, microbial preparations, vermin-compost and biodynamic preparations improve the soil conditions and fertility.

(c) In order to compliment and supplement the efforts made by the State in preservation and development of bovine population the Department of Animal Husbandry, Dairying and Fisheries (DAHD&F) has formulated various Programmes and Schemes such as National Programme on Bovine Breeding and Rashtriya Gokul Mission and also set up National Kamdhenu Breeding Centre and further in order to improve productivity and enhance milk production the Government has also introduced National Mission on Bovine Productivity (NMBP) and National Dairy Plan Phase-I (NDP-I).

The Department of Agriculture, Cooperation and Farmers Welfare (DAC&FW) is also encouraging for preparing organic manure from bio-waste under the Capital Investment Subsidy Scheme (CISS) of “National Mission for Sustainable Agriculture (NMSA)” Programme. Under this Scheme, the financial assistance is provided @ 100% upto a maximum limit of ₹ 190.00 lakh to State Government/Government Agencies and @ 33% upto a maximum limit of ₹ 63.00 lakh per unit to individuals/private agencies through NABARD as capital investment for setting up of mechanized Fruit/Vegetable market waste/Agro waste compost production unit of 3000 TPA production capacity.

The Government is also promoting on-farm production of vermi-compost through various Schemes of DAC&FW such as Soil Health Management of National Mission for Sustainable Agriculture (NMSA), Mission for Integrated Development of Horticulture (MIDH), Paramparagat Krishi Vikas Yojana.

Statement

Cattle Population (in million)

Category of Bovines	1951	1956	1961	1966	1972	1977	1982	1987	1992	1997	2003	2007	2012
Cattle	155.3	158.7	175.6	176.2	178.3	180	192.45	199.69	204.58	198.88	185.18	199.08	190.90

Source: DAHD&F

Assistance to Himachal Pradesh for promoting fruit crops

186. SHRIMATI VIPLOVE THAKUR: Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

(a) whether Government has fixed any target for production of fruits and vegetables in various States of the country, including Himachal Pradesh, during the current Five Year Plan period, if so, the details thereof;