

In and educational activities in agriculture animal



In the ministry of agriculture the Department of Agricultural Research and Foundation (DARE) was set in 1973 to conduct research and educational activities in agriculture animal husbandry and fisheries. Indian Council of Agricultural Research (ICAR) is the nodal organization of the DARE to develop agricultural technologies input material and the use to gain self-sufficiency in food. Indian Agriculture is pegged by nature's vagaries, semi commercialized farming, predominance of small farmers irregularities of monsoon, low level productivity, vast disguised unemployment, increasing pressure of population, excessive use of fertilizer's and pesticides, defective land reforms and poor techniques of agricultural production etc. The significance of Indian agriculture rises from the fact that the development in agriculture is an essential condition for the development of the national economy. In the first five year plan, priority was given to agriculture, but the second and third five year plans experienced a bitter lesson when the failure of agriculture made the entire planning process disastrous.

Again planners gave greater thrust to agriculture in subsequent plan periods. The new technology gave a major breakthrough in agricultural production except in wheat (5. 9% per annum) and potatoes (5.

1% per annum). The growth rate in food grains however maintained at a level of 2. 4% per annum mainly because of 5. 9% wheat production. Cereal production also grew at a faster rate. In order to achieve the objective of removal of the incidence of poverty and unemployment and of ensuring food and nutritional security, the value of agricultural output was targeted to increase at annual rate of 4.

5% during ninth plan period. The ninth plan emphasis on enhancing the capabilities of small peasants and promoting sustainable agricultural system for promotion of agricultural production. Green Revolution: Indian agriculture has been the source of supply of our leading industries. Investment in agriculture, irrigation facilities, tractors, ware houses etc. have been rising thereby continuously increasing the demand for industrial output and adding to the nation's capital stock.

The significance of agriculture in India arises also from the fact that the development in agriculture is an essential condition for the development of the national economy. Economic growth means a higher rate of growth of National Gross Product. It is obviously impossible to attain a higher rate of growth in the economy unless there is rapid growth in the agricultural sectors along with non-agricultural sectors. The new agricultural strategy during 1964-65 was the only cause for starting Green Revolution in India. Green Revolution implies to improve agricultural production and maintaining a high level of agricultural production over a long period of time to improve agricultural production. Green Revolution envisages the following steps; use of high yielding varieties of seeds; use of chemicals fertilizers, pesticides, use of improved technology, multiple, cropping, irrigation facilities, providing agricultural credit to farmers and suitable price mechanism for agricultural production and land reforms.

Agricultural Growth: After near stagnation in 1999-2000 and negative growth of 0.2 percent in 2000-01 agriculture sector is expected to grow nearly 6% during 2001-02 pushing up the G. D. P. growth rate to 5.

4 from a low level of 4 percent in preceding year. Much of the growth in agriculture sector is attributable to the rise in food grains production of non-food crops including oil seeds, jute and cotton. This will help stimulate other sectors of the economy since an increase in incomes of farmers would generate fresh demand for goods and services during 2002. National Agricultural Policy: The Union government came with the National Agricultural Policy (NAP) in July 2000. The major objectives of NAP are a four percent annual growth in agricultural sector and enhanced level of efficiency consistent with environmental sustainability.

Given the past performance of the agriculture sector, there is an imperative need to raise the level of productivity both in food production and in the non-food sector. Equally important is rapid diversification of agriculture. It needs to be noted that there is vast unutilized potential in the agriculture sector. The Government should take steps to utilize that potential. True, the share of agriculture in G. D. P. has come down to 25 percent but 6.

5% of the labour force still depend on agriculture. Agriculture contributes 25% share to G. D. P. Seventy percent people are dependent on agriculture for their livelihood.

Due to climatic variations, all the three types of crops tropical, sub-tropical and temperate are grown in India. The average size of agriculture land-holding is largest in Rajasthan (4.3 hectare) and lowest in Kerala (0.35 hectare). Forests cover one fifth (68.

97 million hectares -22.5%) of total land of India. Based on the climatic variations India has been divided into 15 agro-climatic zones by the Planning <https://assignbuster.com/in-and-educational-activities-in-agriculture-animal/>

Commission of India. The crops in the country have been grouped into three categories (i) Rabi crops which are sown in October and harvested in April, (ii) Kharif crops which are sown in July and harvested in November-December (iii) Zaid crop which are sown in March and harvested in June. India stands second in the world in terms of cultivated land. About 46.59% of the geographical area of the country is under cultivation. About 23.

4 million hectares land is classified as fallow lands which constitute 7.6% of total cultivated area. Thus India has more than half of the total geographical area under cultivation. Fallow land -7.6% and cultivated land -46.59% constitute together 53.

65% of total geographical area of India. With largest number of animals in the world, India ranks first in animal husbandry. Animal husbandry contributes 26% of total agriculture production. Breeds of Milch cattle are Giry, Sindhi, Sahiwal, Tharparkar and Deoni. Drought breeds of cattle found in the country are Nayori, Malr, Kankradha, Hallikar and Siri. Dual purpose breeds of cattle are Tharparkar, Kankrej and Nimri. India has half the number of total buffaloes of the world.

They contribute 54% of total milk in the country and constitute 17% of country's total livestock while revolution (related to milk production) started with the launching of Operation flood in July 1970. Bihar has the largest number of goats followed by Rajasthan. They are the main source for meat (35%). Himalaya/Angora (also known as Gaddi and Champa) found in H. P.

, J & K, provides Pashmina for high quality fabrics. Other breeds of goats are Barbari (found in West U. P.

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) and Jamnapuri (found in the region between Yamuna and Chambal). India ranks sixth in the World in sheep population (50.8 million) and in India Rajasthan leads in sheep-population and thus is the largest producer of wool in the country. 42% wool comes from Rajasthan followed by Kashmir 10% wool production.

Best quality sheep are reared in chamba valley (H. P.) Kashmir and Kangra valleys. Out of total milk production in the country 38.7% is used to manufacture in the country. 38.7% is used to manufacture ghee, 39.8% as fluid milk and 8.

9% for making curd. To conclude, Agriculture is the largest single occupation which provides employment to 58.4% of work force. Rice is the first ranking crop in the country.

Rainfall required for rice production should be from 125 cm to 200 cm and temperature should 23°C. Bengal is the largest rice producer state in India. It produces 3 rice crops—viz., Aus, Aaman and Boro, U. P. and A. P.

stand second in rice production. Wheat ranks second in terms of area and production after rice. It is the chief rabi crop. It requires rainfall in the range of 75 cm. Two important wheat producing zones are Ganga Satlaj plains and Deccan Black soil region in the central part of the country. Its production from 1950-51 till today has become eleventh folded.

Wheat is sown in October-November and harvested in March-April. Winter rainfall (locally known 'month') is very useful for this crop. UP. is the largest producer of wheat and Punjab comes next to U. P.

Black soil because of its moisture retaining capacity is good for wheat cultivation. Rice occupies 1/4th of total cultivated land. One-third area of total cultivated land is devoted to rice production. India occupies largest area under rice-cultivation in the world. India-our country stands second in rice production after China. Hansa, Anna puma, IR-8, Ratna, Jamna, Krishna, Kaveri, Padma are important variety of rice in India.

Basmati rice of Debradoon is famous for its special scent and flavour. Order of Production of Rice is West Bengal (14.6%), U. P. (13.6%), and A. P. (13.

5%) Area wise order of Production of rice W. B. (12.31%) Orissa (10%). India is the fourth largest country in wheat production.

Wheat occupies 15% of total cropped area and 20% of total area devoted to food grains. 100 cm isohyets line is regarded as the dividing line between wheat and rice producing region. Sona, sonalika and Kalyan are important variety of wheat. Area wise production of order is U. P.

(36.6%), Punjab (13.6%), Production order U.

P. (36.3%), Punjab (22.6%) Productivity—Punjab, Haryana, West Bengal barley is another Rabi crop. U.

P. is the largest producer of barley in India. Coarse Cereals comprises mainly jawar, bajra, and ragi. Coarse cereals occupy 17% area of total cultivated land and 25% of total area devoted to food grains. Coarse cereals contribute 14% of total food grains production in the country.

Karnataka is the largest producer of coarse cereals (19%), Next comes Maharashtra (17.5%) followed by U. P. (11.

6%). India is the largest producer of jawar in the world. Jawar is the Kharif crop.

Maharashtra leads in jawar production. Bajra can withstand more dryness than jawar. Rajasthan leads in bajra production. Sugarcane is tropical and subtropical crop. India is supposed to be its original home. She leads in the production of sugarcane in the world and also has the largest cropped area under sugarcane. Traditionally sugarcane is produced in northern plains of India.

But now it is also produced in South India. Sucrose content is more in south Indian sugarcane. CO 421, CO 427, CO 449, CO 313 are some important varieties of sugarcane. India leads in the production of tea (28%) in the world. Tea ranks highest in earnings from export of crops. India is number one in per hectare production of tea.

High rainfall, well drained land are the favourable conditions for tea cultivation. The areas in India where tea is cultivated are Darjeeling, Jalpaiguri, Cooch Bihar (West Bengal). In South India, tea is cultivated in Cardmom hills, West Ghats, Nilgiri hills. Production Order Assam (50%), West Bengal (20%), Tamil Nadu (13%) India produces 4% of total coffee in the world. Major varieties of coffee Robusta, Arabica are cultivated in India Production Order—Karnataka (70%), Kerala (23%), Tamil Nadu (5%). In Karnataka it is produced in Chikmangloor and Coorg district.

India comes third in Cotton cultivation. She contributes 14% of total output of world after U. S. A. and China.

She has the largest area under cultivation of cotton in the world. India produces three types of cotton (i) Long staple cotton (40%), (ii) Medium staple cotton (45%), (iii) Short Staple cotton (15%) black regur soil is specially suited for the cultivation of this fibre crop. Black regular soil has the moisture retentive capacity useful for cotton cultivation.

Maharashtra leads in cotton production (18. 6%). Next comes A. P. (17. 2%) followed by Haryana (14.

3%). India ranks third in tobacco production. She produces two types of tobacco (i) Nicotina Tobaccum (97%) and Nicotina Rhustica. Andhra Pradesh leads in tobacco cultivation. Next comes UP followed by Gujrat. Bihar leads in production of Hookah tobacco whereas Cigar/Cheroot (tobacco) is mainly cultivated in Tiruchirapalli and Dindigul (Karnataka). India ranks fourth in rubber cultivation in the world. Kerala leads in rubber production (66%) in India followed by Tamil Nadu (4%) and Karnataka (2%).

India leads in Mangoes production. Important varieties of Mangoes are Alphanso (Maharashtra), Bangapalli (A. P), Dushehri (U. P.) and Maidab (Bengal). India has the highest production of grapes. Anab e Shahi is well known variety of grapes produced in India.

U. P. leads in Mangoes production in India. Arunanchal in pineapples, Maharashtra in Citrus fruits; J & K in apples; Maharashtra in cashewnuts and onions; Kerala in spices; U. P.

in potatoes; A. P. in turmeric and Meghalay leads in Ginger production.

IRRIGATION There are three major sources or irrigation: (i) Canals (ii) Wells and Tube wells (iii) Tanks U. P.

has the largest number of tube wells. Tamil Nadu is at the top in term of irrigation by tanks. Here 21. 6% area is irrigated by tanks Now 6 to 7% area is irrigated by tanks. Major states where tank irrigation has importance are Orissa, Kerala, Karnataka and Maharashtra. Areas wise, the irrigation by canal has been registered to 31. 1% in 1996-97. Out of total net sown area of India 40% is under irrigation which is the largest in the world.

UP. Has the largest area under tube well and well irrigation. Canal irrigation is well developed in great plans of India. Irrigation Canals 1. Upper Bari Doab 2.

Western Janua Canal 3. Sirhind Feeder 4. Sirhind Canal 5.

Bhakra Canal 6. Eastern Grey Canal 7. Lower Ganga Canal 8. Upper Ganga Canal 9. Agral Canal 10. Eastern Yamuna Canal 11.

Sharda Canal Projects/Canals Locations From Ravi at Madhopur From Jamuna at Tejawala From Ferozpur feeder at Malanwala From Satluj Roper From Bhakra Dam (largest in India) From Satluj near Ferozpur From Ganga at Naroda From Ganga at Haridwar From Yamuna at Okhla From Yamuna near Faizabad From Sharda near Banbasa (Nainital) Major Crops and Producing States CropProducing StateBajra (Mellet)Gujrat, RajasthanBarley (Jau)Uttar Pradesh, RajasthanCardamonKarnataka, KeralaCastor SeedGujrat, Andhra PradeshChilliesTamil Nadu, Andhra PradeshCoffeeKarnataka, Andhra

PradeshCoriandarRajasthan, Andhra PradeshCottonGujrat,
MaharashtraGingerKerala, Himachal PradeshGramRajasthan, Uttar
PradeshGroundnutGujrat, Tamil NaduJawarMaharashtra, GujratJuteBengal,
BiharUnseedMadhya Pradesh, Uttar PradeshMaizaUttar Pradesh,
BiharMestaAndhra Pradesh, BiharMillets (Small)MP, Andhra PradeshNiger
SeedOrissa, UPPaddyBengal, TNPulses (Kharif)Rajasthan, MaharashtraPulses
(Rabi)Orissa, MPRagiKarnataka, TNRiceBengal, Andhra Pradesh, Bihar,
MPSunflowerMaharashtra, KarnatakaSachemUP, Madhya PradeshSeas
mumUP, RajasthanSugarcane (Ganna)UP, MaharashtraTapoua Kerala, TN Tea
Assam, Kerala Tobacco Maharashtra, TN Tur UP, Madhya Pradesh Wheat UP,
Punjab, Haryana Guar Seed Rajasthan, Haryana