

1.	2	3	4	5
21.	Punjab	4158	4070	88
22.	Rajasthan	18349	6661	11688
23.	Sikkim	77	14	63
24.	Tamil Nadu	4954	2912	2042
25.	Tripura	256	60	196
26.	Uttarakhand	723	336	387
27.	Uttar Pradesh	16593	13386	3207
28.	West Bengal	4991	2955	2036
29.	Andaman and Nicobar Island	15	0	15
30.	Chandigarh	1	1	0
31.	Dadra and Nagar Haveli	17	4	13
32.	Daman and Diu	3	0	3
33.	Delhi	22	22	0
34.	Lakshadweep	3	1	2
35.	Puducherry	19	15	4
TOTAL		141580	63601	77979

*Source:* Directorate of Economics and Statistics, Department of Agriculture and Cooperation, Ministry of Agriculture.

#### **Excessive use of chemical fertilizers**

2979. SHRI PIYUSH GOYAL:

SHRI N.K. SINGH:

Will the Minister of AGRICULTURE be pleased to state:

(a) whether excessive use of chemical fertilizers has harmful effects on fertility of soil and human health, if so, the details thereof;

(b) whether Government proposes to educate farmers regarding their balanced

use and to adopt organic farming to improve the quality of soil and reduce input costs of production and if so, the details thereof;

(c) whether Government proposes to identify areas where soil is malnourished and lacks vital nutrients and if so, the details thereof; and

(d) the details of soil testing centres established and soil health cards issued to farmers to replenish the quality of soil, State-wise?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI TARIQ ANWAR): (a) There is no scientific evidence of deterioration of land with judicious use of chemical fertilizers. However, indiscriminate and imbalanced use of fertilizers coupled with low addition of organic matter over years may result into multi-nutrient deficiencies and deterioration of soil health as evident from results of All India Coordinated Research Project (AICRP) on 'Long-Term Fertilizer Experiments'. There is also possibility of nitrate contamination in ground water due to excessive use of nitrogenous fertilizers particularly in light textured soils that has consequence on human health if used for drinking purpose.

(b) Indian Council of Agricultural Research (ICAR) is recommending soil test based balanced and integrated nutrient management through conjunctive use of both inorganic and organic sources of plant nutrients to reduce the use of costly chemical fertilizers and to improve soil health and quality. ICAR also imparts training, organizes Front Line Demonstrations (FLDs) to educate farmers on these aspects.

Under National Project on Management of Soil Health and Fertility (NPMSH&F) farmers are educated on balanced use of fertilizers through various components namely training of farmers, field demonstrations and frontline field demonstrations. Financial assistance is also provided under the scheme for promotion of organic manure, soil amendment (lime/basic slag) in acidic soils and micro-nutrients.

ICAR, during Tenth Plan, initiated a Network Project on Organic Farming (NPOF) with lead center at Project Directorate for Farming Systems Research, Modipuram with the objective of developing package of practices of different crops and cropping systems under organic farming in different agro-ecological regions of the country. The project is running on 13 co-operating centres including State Agricultural Universities (SAUs), spread over 12 States and is still continuing.

Under National Project on Organic Farming (NPOF), various trainings are being conducted to promote the use of organic inputs under organic management system like Certificate Course of Organic Farming, Refresher Training Course for Analysts, Training for Field Functionaries and Extension Officers who in turn educate the farmers. National Seminars are also organized under the scheme to promote organic farming.

Under Rashtriya Krishi Vikas Yojana (RKVY) States provide assistance for organic farming with the approval of State level sanctioning committee under the chairmanship of Chief Secretary of State Government.

(c) Indian Institute of Soil Science, Bhopal is preparing geo-referenced soil fertility maps of various districts of the country (170 districts completed) through different AICRP Coordinating Centres located at various SAUs. These geo-referenced maps can be useful in monitoring nutrient status of districts and fertilizer recommendations for balanced nutrient application in various parts of the country.

(d) Details of soil testing laboratories and soil health cards issued to farmers are given in Statement-I and II respectively.

***Statement-I***

*State-wise number of Soil Testing Laboratories (STLs) in the country*

Sl. No.	Name of the State	No. of STLs
1	2	3
<b>I. South Zone</b>		
1	Andhra Pradesh	90
2	Karnataka	64
3	Kerala	24
4	Tamil Nadu	48
5	Puducherry	2
6	Andaman and Nicobar Island	2
TOTAL		230
<b>II. West Zone</b>		
7.	Gujarat	139
8.	Madhya Pradesh	31
9.	Maharashtra	158
10.	Rajasthan	59

1	2	3
11.	Chhattisgarh	13
12.	Goa	2
TOTAL		402
<b>III. North Zone</b>		
13.	Haryana	38
14.	Punjab	71
15.	Uttarakhand	16
16.	Uttar Pradesh	282
17.	Himachal Pradesh	15
18.	Jammu and Kashmir	13
19.	Delhi	1
TOTAL		436
<b>IV. East Zone</b>		
20.	Bihar	39
21.	Jharkhand	8
22.	Odisha	22
23.	West Bengal	20
TOTAL		89
<b>V. NE Zone</b>		
24.	Assam	11
25.	Tripura	6
26.	Manipur	5
27.	Meghalaya	6
28.	Nagaland	3

1	2	3
29.	Arunachal Pradesh	6
30.	Sikkim	6
31.	Mizoram	6
TOTAL		49
GRAND TOTAL		1206

***Statement-II****State-wise distribution of Soil Health Cards to the farmers*

Sl. No.	State/UTs	Soil Health Cards issued (Till March, 2013) (No. in lakhs)
1	2	3
<b>I. South Zone</b>		
1.	Andhra Pradesh	47.36
2.	Karnataka	60.81
3.	Kerala	20.37
4.	Tamil Nadu	51.00
5.	Puducherry	0.06
6.	Andaman and Nicobar Island	0.03
SOUTH ZONE TOTAL		179.63
<b>II. West Zone</b>		
7.	Gujarat	54.24
8.	Madhya Pradesh	24.27
9.	Maharashtra	37.05
10.	Rajasthan	27.90
11.	Dadra and Nagar Haveli	0.05

1	2	3
12.	Chhattisgarh	5.67
13.	Goa	2.36
WEST ZONE TOTAL		151.54
<b>III. North Zone</b>		
14.	Haryana	19.60
15.	Punjab	26.45
16.	Uttarakhand	2.74
17.	Uttar Pradesh	150.18
18.	Himachal Pradesh	11.68
19.	Jammu and Kashmir	1.80
20.	Delhi	0.07
NORTH ZONE TOTAL		212.52
<b>IV. East Zone</b>		
21.	Bihar	10.70
22.	Jharkhand	1.73
23.	Odisha	23.41
24.	West Bengal	3.50
EAST ZONE TOTAL		39.34
<b>V. North East Zone</b>		
25.	Assam	6.33
26.	Tripura	1.28
27.	Manipur	1.79
28.	Meghalaya	0.92
29.	Nagaland	0.51

1	2	3
30.	Arunachal Pradesh	1.89
31.	Sikkim	0.82
32.	Mizoram	2.87
NE ZONE TOTAL:		16.41
GRAND TOTAL:		599.44

**Pending proposals of Government of Gujarat under  
Feed and Fodder Development Scheme**

2980. SHRI MANSUKH L. MANDAVIYA:  
SHRI DILIPBHAI PANDYA:

Will the Minister of AGRICULTURE be pleased to state:

(a) whether it is a fact that Government of Gujarat has submitted proposals of Rs. 8389.4793 lacs during the years 2010-11 and 2011-12 under Centrally Sponsored Feed and Fodder Development Scheme;

(b) if so, how many proposals have been sanctioned and the amount allocated; and

(c) by when the pending proposals are likely to be sanctioned by the Central Government?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI CHARAN DAS MAHANT): (a) Yes, Sir. This Department had received the proposals amounting to Rs. 8899.49 lakh from Gujarat State during 2010-11 and 2011-12 under the Centrally Sponsored Fodder and Feed Development Scheme, as detailed below:—

Year	Name of the Department	Amount (Rs in lakh)
1	2	3
2010-11	Animal Husbandry	1573.80
		5123.08
		1152.43
		32.68