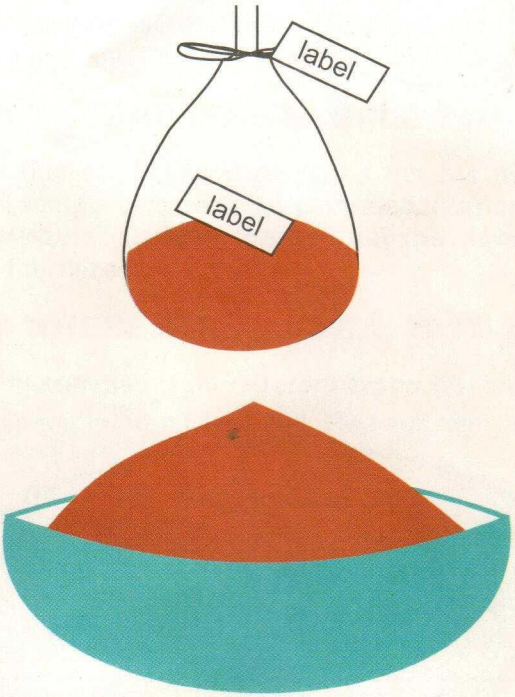
SOIL ANALYSIS



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GOVERNMENT OF GOA

DIRECTORATE OF AGRICULTURE

GOVT. OF GOA.

Panaji - Goa.

SOIL ANALYSIS

1. OBJECTIVES

1. To know the nutritive value of soil and decide the type and quantity of fertilizers to be used for a particular crop.

2. Farmers come to know about available pH, Nitrogen, Phosphorus, Potash, Micronutrients, Calcium and Minerals present in the soil and manage the soil by incorporating required inputs.

2. WHEN TO TAKE SOIL SAMPLE ?

Farmer has to take soil smaple from his land or field for analysis. Soil sample is to be taken before application of organic and chemical fertilizers. Or take the soil sample three months after application of fertilizers.

3. FROM WHERE SOIL SAMPLE IS TO BE TAKEN ?

Take soil samples from different types of soil separately eg. separate soil sample from Black soil, Red soil, Hilly soils, Kher soil,

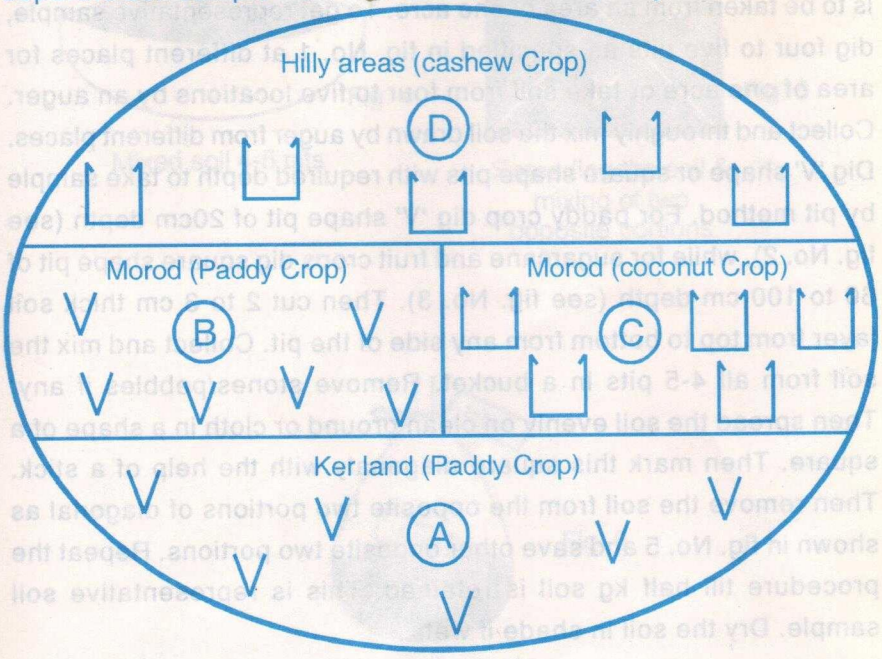

Fig. No. 1

Morod soil, Khazan soils, Dry land soils, etc. Divide the fields based on these criteria into different groups as A.B,C, D, etc. and take soil sample from each group as given in fig. No.1.

4. PLACES FROM WHERE SOIL SAMPLE SHOULD NOT BE TAKEN

Farmers should draw a representative sample from particular land/area. Hence he should draw the sample from the places not affected by other factors that disturb the normal land and nutrient status of the soil. Therefore the farmers should not draw the sample from the locations like sitting places of animals, places where manure is applied, marshy land, old bunds, compost pits, places under tree, etc.

5. HOW TO TAKE SAMPLE

Take one sample from each type of land. Generally one sample is to be taken from an area of one acre. To get representative sample, dig four to five pits as specified in fig. No. 1 at different places for area of one acre or take soil from four to five locations by an auger. Collect and throughly mix the soil drawn by auger from different places. Dig 'V' shape or square shape pits with required depth to take sample by pit method. For paddy crop dig 'V' shape pit of 20cm depth (see fig. No. 2), while for sugarcane and fruit crops dig square shape pit of 60 to 100 cm depth (see fig. No. 3). Then cut 2 to 3 cm thick soil layer from top to bottom from any side of the pit. Collect and mix the soil from all 4-5 pits in a bucket. Remove stones/pebbles if any. Then spread the soil evenly on clean ground or cloth in a shape of a square. Then mark this square diagonaly with the help of a stick. Then remove the soil from the opposite two portions of diagonal as shown in fig. No. 5 and save other opposite two portions. Repeat the procedure till half kg soil is retained. This is representative soil sample. Dry the soil in shade if wet.

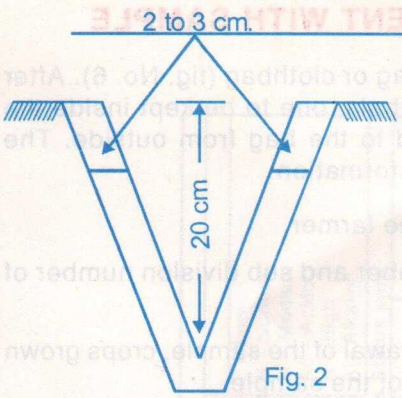

Fig. 2

'V' shape pit

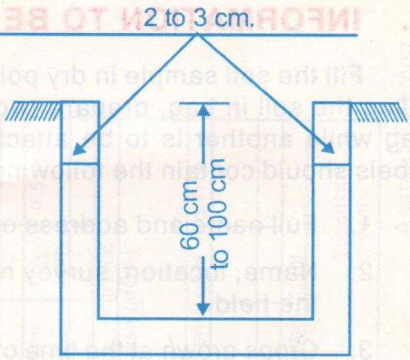

Fig. 3

Square shape pit

Fig. 4

Mixed soil 4-5 pits

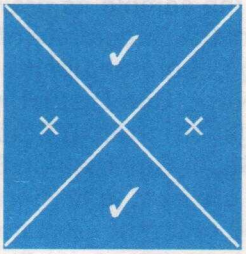

Fig. 5

Spreading the soil & mixing of two opposite portions

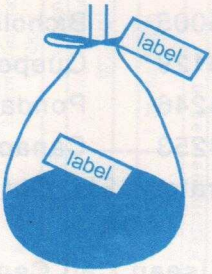

Fig. 6

½ kg. soil sample

6. INFORMATION TO BE SENT WITH SAMPLE

Fill the soil sample in dry polybag or clothbag (fig. No. 6). After filling the soil in bag, prepare two labels, one to be kept inside the bag while another is to be attached to the bag from outside. The labels should contain the following information.

1. Full name and address of the farmer.
2. Name, location, survey number and sub division number of the field.
3. Crops grown at the time of drawal of the sample, crops grown before and after the drawal of the sample.
4. Whether the land is irrigated or un-irrigated.
5. Date of sending the sample.
6. Signature of the farmer.

Send the sample as drawn above, to the nearest Soil Testing Laboratory of the Directorate of Agriculture, Government of Goa. The Soil Testing Laboratory located at Ela, Old-Goa cater the needs of farmers of North Goa District, while the Soil Testing Laboratory, located at Rajendra Prasad Stadium, Margao-Goa cater the needs of farmers of South Goa District. Soil samples are analyzed free of cost and reports are sent to farmers. The format in which farmer will get the analysed report of each soil sample is shown at page no. 5. All farmers should take benefit of this scheme to know the exact nutrient content of the soil and then add correct dose of nutrients.

For technical guidance and further details please contact

The Zonal Agriculture office of your taluka.

Pernem	-	2290291	Mapusa	-	2262368
Margao	-	2715005	Bicholim	-	2362128
Tiswadi	-	2286129	Quepem	-	2662116
Valpoi	-	2374246	Ponda	-	2312119
Sanguem	-	2604253	Canacona	-	2643066

Soil Testing Laboratory, Ela, Old Goa - 2285325

OR

Dial Toll Free Kisaan Call Centre No.: 1551
(Time : 6.00 a.m. to 10.00 p.m.)

DIRECTORATE OF AGRICULTURE

SOIL TESTING LABORATORY

Government of Goa

Soil Health Card

Name of the cultivator

Address

Taluka

Report No.

ANALYTICAL REPORT								
			Macro Nutrients Status Kg/Ha					
pH	E.C. m mhos/cm	Texture	Nitrogen/ Org. Carbon %	Phosphorus	Potassium	L – Low N – Normal M – Medium Ac – Acidc H – High Al - Alkaline		
Ac N A1.	Normal/Injurious/ Critical	L M H	L M H	L M H	L M H			
Secondary Nutrients				Micro Nutrients Status ppm				
	Magnessium (m. eq)	Calcium (m. eq)	Sulphur (ppm)	Zinc	Iron	Mn	Cu	B
Critical limit	1 m. eq/100g	1.5 m.eq/100g	10 ppm	0.5-1 ppm	2.5-4.5 ppm	2 ppm	0.4 ppm	0.5 ppm
Recommendation								
Fertilizer Recommendation Kg/Ha Kg/Tree				Dose of Fertilizer Kg/Ha Kg/Tree				
Crop Paddy Coconut	Nitrogen	Phosphorus	Potassium	DAP	Urea	Potash (MOP)		
Micronutrients Kg/Ha Kg/Tree				Secondary Nutrient Kg/Ha Kg/Tree				
Zinc Sulphate	Iron Sulphate	Manganese Sulphate	Copper Sulphate	Borax				
Organic Manure				Soil Amendment				
Green Manure Kg/Tree		FYM/Compost Tons/Ha Kg/Tree		Lime/Gypsum After every Tons/Ha years				

Date :

Asstant Chemist

Published By :

DIRECTORATE OF AGRICULTURE

Government of Goa

PANAJI - GOA.

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