

**GOVERNMENT DEGREE COLLEGE NARSAPUR (6021)
MEDAK DISTRICT (TS)**

DEPARTMENT OF BOTANY

BEST PRACTICES FOR THE ACADEMIC YEAR 2020-21

A. Title of the Practice: Awareness Program on Soil Technology - Sustainable Employment in Agriculture Sector

B. Objectives of the Practice?

To estimate soil fertility status of agricultural land ? To estimate required inputs - macro and micro nutrients. ? To reduce per unit cost. ? To improve the quality and quantity of production with special focus on organic farming.

C. The Context?

We all know that the villages are the backbone of our country and agriculture is the main occupation of our villagers. Our college is located in rural area. The majority of students belong to the farming community. The major resource is farming. Adequate knowledge of farming - sowing method, selection of seed, soil type testing, soil nutrient testing - goes a far way in increasing the quality and quantity of production. It has been noticed that even IITians are turning into farmers and earning their livelihood. In order to make our students self-employed, this best practice is adopted in our institution.

D. The Practice:

Soil Health plays an important role to ensure good agricultural production. Intensive Agriculture, while increasing food production, causes major and minor nutrients deficiencies. Timely corrective action therefore necessitates balanced use of fertilizers based on soil test data. In such a way soil test results help the farmer to monitor and improve soil health and ultimately results the improvement of crop yield.

- Macronutrients- Nitrogen(N), phosphorus (P) , Potassium (K)
- Secondary Nutrients- Sulphur(S)
- Micronutrients- Boron(B), Zinc (Zn), Iron(Fe), Copper (Cu), Manganese (Mn)
- Physical parameters- P H,

Soil sample collection is done on unit area basis. Irrigated area -2.5 Ha, un- irrigated area- 10 Ha.

The ideal time for collection of soil samples is done between sowing / planting of other crop when fields are vacant.

Sampling collection pits- Dig eight to ten pits of 6 inch, 4 inch, in the field at different places. keep the sample soil in poly bags or containers and mix well.

Now make a pile and divide it into four quarters, discard the two opposite quarters and mix the remaining. Repeat the process two or three times until half Kg sample is left.

Collect the sample in clean poly bag.

Precautions-soil sample should not be collected near the trees, irrigation channels, compost pits. also not to be collected when there is standing crop in the field.

Collection of samples should be done after harvesting either Kharif or Rabi crops.

Separate samples should be collected in fields differing in colour.

Outcome of the Soil test Results-Farmer wise estimation of Soil fertility status.

Estimation of required inputs. Reduce per unit cost.

Improve the quality & quantity of production.

Awareness about the high accuracy and consistency farming.

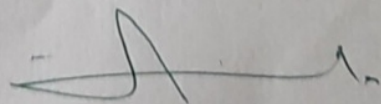
Opportunity to improve Fertilizer use efficiency.

Due to soil test results enormous chemical fertilizers consumption dropped.

Usage of Bio fertilizers, compost use, lowering salt content, improvement in soil PH in case of Acid & Salt affected soils. Increase in Earthworms- reduces cultivation cost & increase in Agriculture production and Farmer income with improvement in soil Health.

E. Evidence of Success: As our students are now acquainted with soil technology, they are spreading the knowledge among other farmers. Earlier, the students had a low opinion of their parents' occupation - agriculture. Now they are joining hands with their parents and other farmers in adopting soil technology. They are taking up farming in their leisure time; thus enhancing family income. They are following the footsteps of IITians-turned farmers. This reduces unemployment. None of our students are idle for lack of work.

F. Problems Encountered and Resources Required: In rural based colleges, there is a need for introduction of the subject of agriculture field technology with modern techniques to gain adequate knowledge for extension of our students' services to their parents in the agricultural field.



PRINCIPAL
Govt. Degree College
Narasapur, Medak-502 313.

Nutrient Status - Farmer-Wise(2018-19)

Sub District/Mandal: Narsapur,Medak,Dist.Telangana

Sr. No.	Sample No.	Farmer Name	Survey No.	Longitude	Latitude	pH	EC	OC	N	P	K	S	Zn	Fe	Cu	Mn	B
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1. Village: Narsapur

1	TGS73778/2018-19/28273230	K CHANDRAKALA	79/49	77.4432	17.428	7.50000	0.22000 N	0.40000 L	62.72000	41.00000	511.00000	188.00000	0.69200 S	5.27200 S	1.05200 S	3.06100 S	4.49000 S
2	TGS73778/2018-19/28273230	D ANJANAYEU GOUD	79/91/4/1	77.4432	17.428	7.50000	0.22000 N	0.40000 L	62.72000	41.00000	511.00000	188.00000	0.69200 S	5.27200 S	1.05200 S	3.06100 S	4.49000 S
3	TGS73778/2018-19/28273241	B PRANJULAH RAO	240/AA	77.4432	17.428	7.50000	0.20000 N	0.40000 L	250.88000	41.00000	473.00000	188.00000	0.67200 S	5.30600 S	1.01200 S	3.06100 S	4.49000 S
4	TGS73778/2018-19/28273241	B RUKMANI DEVI	240/EE	77.4432	17.428	7.50000	0.20000 N	0.40000 L	250.88000	41.00000	473.00000	188.00000	0.67200 S	5.30600 S	1.01200 S	3.06100 S	4.49000 S
5	TGS73778/2018-19/28273406	G MANIKYAM	244/A	77.4432	17.428	7.50000	0.19000 N	0.40000 L	50.17600	41.00000	496.00000	188.00000	0.71300 S	5.32100 S	0.43200 S	3.06100 S	4.49000 S
6	TGS73778/2018-19/28273406	S YAADALAH	245/AA	77.4432	17.428	7.50000	0.19000 N	0.40000 L	50.17600	41.00000	496.00000	188.00000	0.71300 S	5.32100 S	0.43200 S	3.06100 S	4.49000 S
7	TGS73778/2018-19/28273563	E BHARATHANNA	256	77.4432	17.428	7.50000	0.18000 N	0.40000 L	75.26400	41.00000	442.00000	188.00000	0.26500 D	5.28100 S	0.63200 S	3.06100 S	4.49000 S
8	TGS73778/2018-19/28273563	MANCHURU MALLES	258/AA	77.4432	17.428	7.50000	0.18000 N	0.40000 L	75.26400	41.00000	442.00000	188.00000	0.26500 D	5.28100 S	0.63200 S	3.06100 S	4.49000 S
9	TGS73778/2018-19/28345822	N KISHANNA	114/24	77.4432	17.428	7.40000	0.22000 N	0.90000 H	250.88000	49.00000	511.00000	135.00000	0.69200 S	5.27200 S	1.05200 S	6.29300 S	3.67000 S
10	TGS73778/2018-19/28345822	S SUGUNANNA	114/11	77.4432	17.428	7.40000	0.22000 N	0.90000 H	250.88000	49.00000	511.00000	135.00000	0.69200 S	5.27200 S	1.05200 S	6.29300 S	3.67000 S

2. Village: Reddipalle

1	TGS73758/2018-19/28055500	CHANDAGONI SATYANARAYA GOUD	158aa2	77.4432	17.428	7.20000	0.25000 N	0.60000 M	125.44000	110.00000	299.00000	143.00000	0.61200 S	6.99900 S	0.91600 S	7.17400 S	2.45000 S
2	TGS73758/2018-19/28055500	CHANDAGONI shreshanna	158e	77.4432	17.428	7.20000	0.25000 N	0.60000 M	125.44000	110.00000	299.00000	143.00000	0.61200 S	6.99900 S	0.91600 S	7.17400 S	2.45000 S
3	TGS73758/2018-19/28055500	Chendragoni SATYANARAYA GOUD	158a2	77.4432	17.428	7.20000	0.25000 N	0.60000 M	125.44000	110.00000	299.00000	143.00000	0.61200 S	6.99900 S	0.91600 S	7.17400 S	2.45000 S
4	TGS73758/2018-19/28055500	CHANDAGONI NARA GOUD	159e	77.4432	17.428	7.20000	0.25000 N	0.60000 M	125.44000	110.00000	299.00000	143.00000	0.61200 S	6.99900 S	0.91600 S	7.17400 S	2.45000 S
5	TGS73758/2018-19/28055520	ERLA SAKSHYAM	170E3	77.4432	17.428	6.60000	0.60000 N	0.80000 H	112.89600	43.00000	345.00000	72.00000	0.88900 S	5.81400 S	0.95000 S	8.14300 S	4.49000 S
6	TGS73758/2018-19/28055886	SHEETI RAMAIAH	217aa	77.4432	17.428	7.30000	0.38000 N	0.40000 L	188.16200	40.00000	310.00000	118.00000	0.73400 S	6.94600 S	1.01100 S	4.90000 S	4.90000 S
7	TGS73758/2018-19/28055886	PRAYTA SATYA GOUD	220/a2	77.4432	17.428	7.30000	0.38000 N	0.40000 L	188.16200	40.00000	310.00000	118.00000	0.73400 S	6.94600 S	1.01100 S	4.90000 S	4.90000 S
8	TGS73758/2018-19/28055913	ERLA NARALAH	223AA	77.4432	17.428	8.50000	0.42000 N	0.50000 L	100.35200	49.00000	350.00000	244.00000	0.63400 S	6.12000 S	0.11360 D	0.28900 D	6.12000 S
9	TGS73758/2018-19/28051606	Lalithamma	22uu	77.4432	17.428	6.30000	0.15000 N	0.70000 M	175.61600	75.00000	599.00000	109.00000	0.74800 S	3.64300 D	0.93600 S	3.14300 S	1.63000 S
10	TGS73758/2018-19/28051662	ANJANTI BIKSHAPATYI	28A1	77.4432	17.428	6.60000	0.17000 N	0.70000 M	263.42400	108.00000	312.00000	76.00000	0.71200 S	3.41600 D	0.83200 S		4.90000 S

3. Village: Pedda Chintakunta

1	TGS73770/2018-19/27342787	GURRALA YADALAH	53AA4/1	77.4432	17.428	7.60000	0.40000	N	0.90000	H	250.88000	34.40000	519.00000	165.00000	0.13400	D	8.84800	0.33200	S	9.64200	1.63000
2	TGS73770/2018-19/27342787	GURRALA LAXMI	56/1	77.4432	17.428	7.60000	0.40000	N	0.90000	H	250.88000	34.40000	519.00000	165.00000	0.13400	D	8.84800	0.33200	S	9.64200	1.63000
3	TGS73770/2018-19/28545573	VENKATRAOJET LAXMI	S2E1	77.4432	17.428	7.10000	0.21000	N	0.90000	H	275.96800	34.40000	171.00000	212.00000	0.26300	D	3.45600	0.72700	S	5.21300	3.30000
4	TGS73770/2018-19/28545573	KAKARI KRISHNA	S2A1	77.4432	17.428	7.10000	0.21000	N	0.90000	H	275.96800	34.40000	171.00000	212.00000	0.26300	D	3.45600	0.72700	S	5.21300	3.30000
5	TGS73770/2018-19/28545595	GURRALA POCHALAH	S3/AA1/2	77.4432	17.428	7.10000	0.39000	N	0.90000	H	225.79200	43.00000	343.00000	270.00000	0.41200	D	7.80700	0.76400	S	4.18400	1.22000
6	TGS73770/2018-19/28545669	VADLA VAIRAMANI	S4AA6	77.4432	17.428	7.40000	0.21000	N	0.90000	H	275.96800	60.10000	427.00000	147.00000	0.47600	D	7.42600	0.78900	S	4.89300	2.86000
7	TGS73770/2018-19/28545669	GURRALA SUSHILA	S3A4	77.4432	17.428	7.40000	0.21000	N	0.90000	H	275.96800	60.10000	427.00000	147.00000	0.47600	D	7.42600	0.78900	S	4.89300	2.86000
8	TGS73770/2018-19/28545720	GURRALA MANALAH	62A2	77.4432	17.428	7.10000	0.35000	N	0.90000	H	250.88000	51.60000	496.00000	165.00000	0.48100	D	6.90600	0.76400	S	4.68900	3.67000
9	TGS73770/2018-19/28545720	VADLA NARSIMHA CHARI	S4A4A	77.4432	17.428	7.10000	0.35000	N	0.90000	H	250.88000	51.60000	496.00000	165.00000	0.48100	D	6.90600	0.76400	S	4.68900	3.67000
10	TGS73770/2018-19/28545746	KUMHARI YADALAH	65A2	77.4432	17.428	7.00000	0.26000	N	0.90000	H	238.33600	43.00000	534.00000	212.00000	0.49300	D	7.01500	0.81200	S	4.41200	4.08000

4. Village: China Chintakunta

1	TGS73769/2018-19/27253576	BURRA PEDDANA GOUDA R	46/10/3	77.4432	17.428	7.20000	0.28000	N	0.90000	H	263.42400	25.80000	419.00000	218.00000	0.34200	D	5.81900	0.48200	S	2.96600	2.86000
2	TGS73769/2018-19/27253576	VADLA RAHESH	46/19	77.4432	17.428	7.20000	0.28000	N	0.90000	H	263.42400	25.80000	419.00000	218.00000	0.34200	D	5.81900	0.48200	S	2.96600	2.86000
3	TGS73769/2018-19/27253627	NERUDI PENTALAH	4619A3	77.4432	17.428	7.30000	0.32000	N	0.90000	H	250.88000	77.30000	503.00000	200.00000	0.29600	D	5.94200	0.50100	S	3.35700	3.26000
4	TGS73769/2018-19/27253627	VADLA RAHESH	46/22	77.4432	17.428	7.30000	0.32000	N	0.90000	H	250.88000	77.30000	503.00000	200.00000	0.29600	D	5.94200	0.50100	S	3.35700	3.26000
5	TGS73769/2018-19/27342753	Konda nataraj	27	77.4432	17.428	7.20000	0.28000	N	0.70000	M	188.80800	60.10000	397.00000	147.00000	0.26400	D	5.60500	0.43200	S	3.85000	4.08000
6	TGS73769/2018-19/27213157	RACHAKONDA SWAMI	33/UUURU	77.4432	17.428	7.60000	0.40000	N	0.70000	M	125.44000	34.40000	519.00000	229.00000	0.56800	D	1.34700	0.23100	S	8.73200	1.53000
7	TGS73769/2018-19/27213157	YATA USHALAH	10A1	77.4432	17.428	7.60000	0.40000	N	0.70000	M	125.44000	34.40000	519.00000	229.00000	0.56800	D	1.34700	0.23100	S	8.73200	1.53000
8	TGS73769/2018-19/27340006	VADLA SRINU	67A1	77.4432	17.428	7.40000	0.22000	N	0.90000	H	250.88000	25.80000	366.00000	206.00000	0.13400	D	3.78500	0.63200	S	9.84300	2.04000
9	TGS73769/2018-19/27340006	VADLA VEERAMANI	69A1	77.4432	17.428	7.40000	0.22000	N	0.90000	H	250.88000	25.80000	366.00000	206.00000	0.13400	D	3.78500	0.63200	S	9.84300	2.04000
10	TGS73769/2018-19/27340142	JANMILA VENKATESHAM	95A	77.4432	17.428	6.70000	0.34000	N	0.90000	H	275.96800	34.40000	222.60000	229.00000	0.18600	D	2.35600	0.23100	S	2.38100	1.63000

5. Village: Rustompet

1	TGS73772/2018-19/30262534	G YADALAH	65/AA	77.4432	17.428	7.60000	0.87000	N	0.90000	H	251.00000	26.00000	130.00000	123.00000	0.56000	D	6.83000	0.28000	S	8.39000	4.72000
2	TGS73772/2018-19/30262534	CH SHANKARALAH	65/E1	77.4432	17.428	7.60000	0.87000	N	0.90000	H	251.00000	26.00000	130.00000	123.00000	0.56000	D	6.83000	0.28000	S	8.39000	4.72000
3	TGS73772/2018-19/30267432	G BHUDHMA	2A7/AA2	77.4432	17.428	7.60000	0.19000	N	0.90000	H	263.42400	33.00000	282.00000	200.00000	0.64200	D	11.14000	0.19400	D	9.87600	1.12000
4	TGS73772/2018-19/30267432	S SAIGAMMA	2A8	77.4432	17.428	7.60000	0.19000	N	0.90000	H	263.42400	33.00000	282.00000	200.00000	0.64200	D	11.14000	0.19400	D	9.87600	1.12000
5	TGS73772/2018-19/30267958	B BALAMANI	261/AA	77.4432	17.428	7.60000	0.54000	N	0.90000	H	225.00000	51.60000	114.00000	200.00000	0.64200	D	11.14000	0.19400	D	9.87600	1.12000
6	TGS73772/2018-19/30267958	B MUTHALAH	262/A1	77.4432	17.428	7.60000	0.54000	N	0.90000	H	225.00000	51.60000	114.00000	200.00000	0.64200	D	11.14000	0.19400	D	9.87600	1.12000
7	TGS73772/2018-19/30268069	M NAASAMINA	267	77.4432	17.428	7.60000	0.36000	N	0.90000	H	263.42400	33.00000	282.00000	200.00000	0.64200	D	11.14000	0.19400	D	9.87600	1.12000
8	TGS73772/2018-19/30268069	PARVEEN BEGUM	271	77.4432	17.428	7.60000	0.36000	N	0.90000	H	263.42400	33.00000	282.00000	200.00000	0.64200	D	11.14000	0.19400	D	9.87600	1.12000
9	TGS73772/2018-19/28034994	PAMBALA NIRMALA	39	77.73333	17.428	7.00000	0.33000	N	0.90000	H	250.00000	33.00000	511.00000	200.00000	0.88500	D	5.78900	0.21400	S	6.53400	2.04000
10	TGS73772/2018-19/28035172	PAMBALA LAXMI	40	77.73333	17.428	7.00000	0.33000	N	0.90000	H	250.00000	33.00000	511.00000	200.00000	0.51400	D	8.56200	0.21400	S	9.58200	2.04000

L - Low, VL - Very Low, M - Medium, H - High, VH - Very High, D - Deficient, S - Sufficient, Acid Sulphate - As, SrAc - Strongly acidic, HAC - Highly Acidic, MAC - Moderately Acidic, SAC - Slightly Acidic, N - Neutral, MAL - Moderately Alkaline, Stronaly Alkaline, Tot - Total