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NO.NAU/DR/Annual Report/T-2/ 10375-76/2012 DATE : 30.07.2012
1-8-2012

RPAD

To,
Dr. Arup Ghosh,
Scientist,
Waste land Research Discipline,
Central Salt and Marine Chemicals Research Institute,
Gijubhai Badheka Marg,
Bhavnagar-364 002

Sub. : One year report of **"Effect of Seaweed sap on soil fertility, growth and yield of rice (*Oryza sativa* L.)"** summer-2012 reg....
Ref. : Asso. Res. Sci., Vyara letter No. RRRS/T-2/1148/2417/2012, Dated : 25/07/2012

With reference to above cited subject & letter, I am sending here with one year report of **"Effect of Seaweed sap on soil fertility, growth and yield of rice (*Oryza sativa* L.) "** summer-2012 for your information and needful action. The receipt of the same may kindly acknowledged.

Thanking you,

Encl : A/a

Director of Research &
Dean P.G. Studies

Copy to :
1. Research scientist, Regional Rice Research Station, NAU, Vyara for information.

Table 3: Effect of seaweed sap on yield attribute of rice.

Treatment	Grain yield (kg/ha)	Percent increase over control treatment i.e. T_9	Fodder yield (kg/ha)
T_1: 2.5 % K-sap + RDF	5970.209	18.15	6349.44
T_2: 5 % K-sap + RDF	5983.897	18.42	6350.08
T_3: 10 % K-sap + RDF	**6484.702**	28.33	**6376.81**
T_4: 15 % K-sap + RDF	6393.559	26.53	6370.37
T_5: 2.5 % G-sap + RDF	6349.597	25.66	6331.08
T_6: 5 % G-sap + RDF	6356.039	25.78	6320.29
T_7: 10 % G-sap + RDF	6291.787	24.51	6300.81
T_8: 15 % G-sap + RDF	6328.019	25.23	6347.02
T_9: Water spray + RDF	5053.140	0.00	5906.60
T_{10}: 7.5 % K-sap + 50% RDF	4333.494	-14.24	4520.13
S.Em.±	367.58		315.07
C.D. at 5 %	1092.17		936.18
C.V. %	10.69		8.92

Grain yield results of rice experiment showed significant differences with the use of Seaweed sap+100% RDF over control treatment (i.e. water spray+100% RDF). Grain yield ranged from 4333.494 kg/ha (T_{10}: 7.5 % K-sap + 50% RDF) to 6484.702 kg/ha (T_3: 10 % K-sap + RDF). The treatment T_3 i.e. 10 % K-sap + RDF yielded significantly higher grain yield (6484.702 kg/ha) which was at par with the other treatments like T_4, T_6, T_5, T_8, T_7, T_2 and T_1(Table:3). T_{10}: 7.5 % K-sap + 50% RDF yielded 4333.49kg/ha.

The treatments T_1: 2.5 % K-sap + RDF and T_5: 2.5 % G-sap + RDF gave 18.15% and 25.33% more grain yield over control treatment (T_9: Water spray + RDF), respectively. The treatment T_5: 2.5 % G-sap + RDF gives an increase in 25.33 % grain yield of rice over control which is much more economic than the treatment T_3: 10 % K-sap + RDF which gave the significantly higher grain yield with 28% difference with control.

Considering the grain yield results of one season experiment, it can be easily concluded that the low concentration of G-sap is as effective as high concentration.

The treatment T_3 i.e. 10 % K-sap + RDF also showed the significantly higher results in terms of fodder yield of rice crop with at par results from the other treatments like T_4, T_2, T_1, T_8, T_5, T_6 and T_9. These are results of one season experiment and needs to be tested over seasons for final conclusions.

Soil fertility - Soil fertility analysis is going on, the result will be submitted later on.

ASSOCIATE RESEARCH SCIENTIST RRS, NAU VYARA

Associate Research Scientist (A.B.)
Regional Rice Research Station
Navsari Agricultural University
VYARA-394650, Dist. Surat.

EXPERIMENTAL PLOT ON 7th MAY

EXPERIMENTAL PLOT HARVESTED

ASSOCIATE RESEARCH SCIENTIST RRRS, NAU VYARA