



EFFECT OF INTEGRATED NUTRIENT MANAGEMENT ON THE DRY MATTER FOR ADSALI AND RATOON SUGARCANE.

V.E.DARANDALE

A. C. S. College, SONAI, Tal .Newasa ,Dist. Ahmednagar

Email: vitthalrao.darandale@gmail.com

ABSTRACT:

A field experiment was conducted for Adsali and Ratoon sugarcane during the year 2007-08 and 2008-2009 at the Research farm at Mula sugar factory Sonai Dist. Ahmednagar. The main objective was to study comparative effect of integrated nutrient management on the dry matter for Adsali and Ratoon sugarcane of variety CO-86032. The experiment was laid down in randomized block designs with three replications and thirteen treatments. The treatment consists of 50% and 25% levels of organic manures viz. Compost, Vermicompost, Neemcake, Pressmud and Cassia leaves along with inorganic fertilizers like Urea at 50% and 75% levels. The result revealed that among the different seasons. The maximum dry matter in cane and green top was recorded 53.46 and 12.66 t/ha respectively and total dry matter in a plant was 66.12 t/ha where nitrogen was supplied through 50% pressmud and 50% urea.

Keywords:- Pressmud , Sugarcane, Nutrient uptake , Mannure

INTRODUCTION:

Sugarcane (*Saccharum officinarum* L.) is one of the most important commercial cash crop of the world. Sugar industry is the second largest agro based industry next to textiles in the country. Sugarcane crop cultivated in about 121 different countries of the world. India contributes an area about 4.0 million ha. with 300 million tones of production. Maharashtra is one of the leading sugar producing state in the country. According to national projection our country need 22.29 and 20.69 million tones of sugar and jiggery by 2020 and in order to achieve these targets sugarcane production will be required 284.3 million ton⁹. There is little scope for increasing area under sugarcane. The alternative way will maximize the productivity per unit. The productivity depends upon growth of sugarcane plant. Growth is ultimately affected by dry matter in cane and green tops. Hence it is essential to increase the dry matter production in total plant. Sugarcane crop stands in the field for period of 12-18 months for planting season and 12 months for ratoon season and it required 16 different types of nutrients. Nitrogen is one of the major nutrients. At present nitrogen was supplied through chemical fertilizers. The continuous use of fertilizers degraded the soil fertility and productivity. Integrated application of organic manures and fertilizers assures dry matter in a plant. In order to achieve improvement in dry matter for Adsali and Ratoon sugarcane crop present investigation was carried out

MATERIALS AND METHODS :

Field experiment was conducted in Research farm of Mula Sugar Factory Sonai,

Dist. Ahmednagar Experiment was performed on Adsali and Ratoon season sugarcane variety CO-86032. The soil was medium black having pH 8.3. Electrical conductivity 0.30 Dc/Mint , Organic carbon 0.69 and available N,P,K was 260 kg/ha , 30 kg/ha , 314 kg/ha respectively. The experiment was laid out randomize block designs with three replications and thirteen different treatments. The dry matter in cane and green tops are studied after harvesting.

2) Ranjan Kolambe, Environmental Studies Chp.44, pp.256

3) S.P. Misra, S.N. Pandey (2008); Essential Environmental Studies; Chp.40 ,pp 560-565.

RESULT & DISCUSSION :

Perusal of data in table no.1 regarding Adsali crop dry matter shows that maximum dry matter in cane and green top was 53.46, 12.66 t/ha respectively whereas dry matter in total plant was recorded 66.12 t/ha . These results are confirmed with the finding of 2, 4, 6, 7 and 11.

Perusal of data regarding ratoon crop dry matter shows that maximum dry matter in cane and green top was 45.74 and 13.36 t/ha respectively whereas dry matter in total plant was 59.10 t/ha. These results are confirmed with findings of 2, 4, 6,7, and 11.

CONCLUSION :

From above results among the different season it can be concluded that integrated use of organic manures with fertilizers is one extremely important for dry matter where nitrogen was

supplied from 50 % pressmud and 50 % through urea in Adsali is sugarcane

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