



## Varietal Assessment of Radish, Varieties for Better Productivity in Tirap District of Arunachal Pradesh

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### INTRODUCTION

Radish is a root crop which belongs to Brassicaceae family. It grows worldwide for fresh consumption as salad, pickles etc purposes. It is a rich in vitamins and minerals. It has diuretic & refreshing property. In homeopathic treatment, this is used against diarrhea, sleeplessness, headache and neurological problems. Its roots are also useful in urinary and piles problems. As per recommendation of dieticians, the vegetable consumption per head/day is 300 gm; in which 125 gm of leafy vegetables, 100 gm of roots and 75 gm of other vegetables. In some studies reported that radish cultivation can reduce the root knot nematode and soybean cyst nematode. Its cultivation also play as cover crop to prevent soil erosion, suppression of weeds growth, improvement of physical property of soil, improvement in soil porosity, scavenge nutrients etc. Radish is mainly grow in winter season, but some thermo-insensitive varieties have been releases which are growing during off season too. The popularity of radish in Arunachal Pradesh is too high due to its adaptability in the region, easy cultural practices, short duration of cultivation, mixed cropping with maximum crops, wider range of uses etc.

In a Participatory Rural Appraisal (PRA) programme; conducted by Krishi Vigyan Kendra (KVK) – Tirap it has observed that the existing varieties of radish are old so that their productivity is very low. In this situation the KVK Tirap has decided to conduct an On Farm Trial (OFT) on ‘varietal assessment of radish, varieties- Pusa chetki (control- T1), Fourty Days (T2) and Snow white (T3) during rabi season, 2018-19. The OFT conducted at locations in villages- Lekhi village, Nutan Kheti and Noitong. The each plot size was 0.025 ha per farmer and the total area was 0.10 ha. All the selected farmers were educated about scientific cultivation practices of radish; especially in reference to Tirap district of Arunachal Pradesh.

The all plots had debris free, ploughed 3 times, planked and FYM incorporated in soil @ 5 kg/m<sup>2</sup>; during last ploughing. The seeds of radish sown on 15<sup>th</sup> November, 2018 @ spacing of 30 cm x 10 cm spacing. The trial

fields were irrigated lightly @ 7 days after sowing. The 3 manual weeding followed – first- 10 days after sowing, second- 20 days after sowing and third- 30 days after sowing.

**Table no-1, Data sheet of varietal assessment of radish**

Treatments	Parameters					
	No of leaves@ 30 days	Length of leaf (cm)	Plant height (cm)	Length of root (cm)	Diameter of root (cm)	Root Yield (t/ha)
T1: Pusa chetki-check	8.26	20.21	19.32	20.04	2.87	22.89
T2- Fourty days	10.87	21.96	30.67	23.78	3.12	24.57
T3- Snow white	12.54	23.86	32.46	28.61	3.47	29.84

The data from table no -1 showing that the existing cultivar – Pusa Chetki were reported inferior in all parameters. This is clearly showing that the old variety had loosed their genetic vitality and productivity. The T3-variety- Snow white, reported maximum number of leaves per plant ( 12.54), maximum length of leaf ( 23.86 cm), plant height ( 32.46 cm), maximum length of root ( 28.61 cm), maximum diameter of root ( 3.47 cm) and root yield (29.84 t/ha) followed by T-2- variety Fourty days : leaves per plant ( 10.87),

maximum length of leaf ( 21.96 cm), plant height ( 30.67 cm), maximum length of root ( 23.78 cm), maximum diameter of root ( 3.12 cm) and root yield (24.57 t/ha). Meanwhile the minimum was recorded with Check- Pusa Chetaki: number of leaves per plant ( 8.26), length of leaf ( 20.21 cm), plant height ( 19.32 cm), length of root ( 20.04 cm), diameter of root ( 2.87 cm) and root yield (22.89 t/ha). So, in this study Variety- Snow white is found superior over check in all aspect of cultivation in Tirap district of Arunachal Pradesh.

