

Table 3. Effect of chopped rice straw and both of potassium and phosphorus foliar application on plant growth characters of sweet potato plant at 120 days after transplanting during 2017 and 2018 seasons.

Treatment	Vine length (cm)	Leaf number/plant	Branch number/plant	Vine fresh weight /plant(g)	Vine dry weight/plant (g)
<i>2017 season</i>					
Control	85.66d	85.00d	14.66 c	421.33c	16.00 d
Chopped rice straw at 2kg/ridge	97.00cd	101.66c	15.5 c	464.00bc	16.33cd
Chopped rice straw at 4 kg/ ridge	109.00bc	108.33bc	16.5 c	513.33 b	16.33cd
Chopped rice straw at 2 kg/ ridge +at KP2 mll ⁻¹	111.00bc	110.00bc	16.00 c	517.33 b	16.33cd
Chopped rice straw at 4 kg/ ridge +at KP2 mll ⁻¹	112.66bc	108.00bc	18.00 bc	519.00 b	15.33d
Chopped rice straw at 2 kg/ ridge +at KP4 mll ⁻¹	122.66ab	127.33ab	21.00 ab	1134.33a	18.00b
Chopped rice straw at 4 kg/ ridge +at KP4 mll ⁻¹	135.33a	132.66a	22.33 a	1151.00a	19.00 a
<i>2018 season</i>					
Control	91.33d	95.00 d	14.00d	635.33e	16.00b
Chopped rice straw at 2kg/ridge	100.00c	96.66 d	16.66c	679.33e	17.00b
Chopped rice straw at 4 kg/ ridge	104.66c	101.66 d	16.66c	762.66d	17.00b
Chopped rice straw at 2 kg/ ridge +at KP2 mll ⁻¹	113.33b	109.66 c	18.00bc	817.33c	17.00b
Chopped rice straw at 4 kg/ ridge +at KP2 mll ⁻¹	116.66b	113.33 c	17.00c	828.66c	17.00b
Chopped rice straw at 2 kg/ ridge +at KP4 mll ⁻¹	121.33b	124.66 b	20.00b	1010.33b	17.00b
Chopped rice straw at 4 kg/ ridge +at KP4 mll ⁻¹	137.66a	136.00 a	23.00a	1130.00a	19.00a

a,b ... Means followed by different letters are significantly different at $P \leq 0.05$ level , Duncan's multiple range test.
K= Potassium, P= Phosphorus, ridge = 3m² (0.75 m wide × 4 m long)

Table 4: Effect of chopped rice straw and both of potassium and phosphorus foliar application on the chemical constituents of sweet potato plant at 120 days after transplanting during 2017 and 2018 seasons.

Treatment	N%	P%	K%	Total protein (%)
2017 season				
Control	1.23c	0.192b	2.47 b	7.69 c
Chopped rice straw at 2kg/ridge	1.30bc	0.188b	2.49 b	8.13 bc
Chopped rice straw at 4 kg/ ridge	1.28bc	0.189b	2.49 b	8.00bc
Chopped rice straw at 2 kg/ ridge +at KP2 mll ⁻¹	1.52b	0.197b	2.60 b	9.50 b
Chopped rice straw at 4 kg/ ridge +at KP2 mll ⁻¹	1.49b	0.199b	2.56 b	9.31 b
Chopped rice straw at 2 kg/ ridge +at KP4 mll ⁻¹	1.54b	0.203b	2.59 b	9.63 b
Chopped rice straw at 4 kg/ ridge +at KP4 mll ⁻¹	1.81a	0.218a	3.31 a	11.31 a
2018 season				
Control	1.27 b	0.182 c	2.43 b	7.94 b
Chopped rice straw at 2kg/ridge	1.34 b	0.182 c	2.51 b	8.38 b
Chopped rice straw at 4 kg/ ridge	1.81 b	0.193 c	2.55 b	11.31 b
Chopped rice straw at 2 kg/ ridge +at KP2 mll ⁻¹	1.64 b	0.199 c	2.50 b	10.25 b
Chopped rice straw at 4 kg/ ridge +at KP2 mll ⁻¹	1.59 b	0.206 c	2.51 b	9.94 b
Chopped rice straw at 2 kg/ ridge +at KP4 mll ⁻¹	1.69 b	0.2446 b	2.55 b	10.56 b
Chopped rice straw at 4 kg/ ridge +at KP4 mll ⁻¹	2.06 a	0.285 a	2.75 a	12.88 a

a,b ... Means followed by different letters are significantly different at $P \leq 0.05$ level , Duncan's multiple range test.

K= Potassium

P= Phosphorus, ridge = 3m² (0.75 m wide × 4 m long)

Table 5: Effect of chopped rice straw and both of potassium and phosphorus foliar application on tuber root yield and yield components of sweet potato plant during 2017 and 2018 seasons.

Treatment	Tubers root number /plant	Tuber root yield/plant (kg)	Total tuber root yield (ton /fad.)	Marketable tuber root yield (ton /fad.)
2017season				
Control	3.50 c	0.700 d	11.20 d	10.00 d
Chopped rice straw at 2kg/ridge	4.46 b	0.825 c	13.55 cd	10.55 d
Chopped rice straw at 4 kg/ ridge	5.40 b	1.042 b	15.28 bc	12.28 c
Chopped rice straw at 2 kg/ ridge +at KP2 ml ⁻¹	5.76 b	1.180 b	16.76 bc	13.99 c
Chopped rice straw at 4 kg/ ridge +at KP2 ml ⁻¹	6.50 b	1.397 b	18.48 b	15.98 bc
Chopped rice straw at 2 kg/ ridge +at KP4 ml ⁻¹	6.00 b	1.260 b	17.92 b	15.22 b
Chopped rice straw at 4 kg/ ridge +at KP4 ml ⁻¹	7.50 a	1.725 a	19.16 a	17.10 a
2018 season				
Control	3.66 c	0.59 c	12.84 c	9.44 d
Chopped rice straw at 2kg/ridge	4.50 c	0.69 c	14.35 c	11.20 c
Chopped rice straw at 4 kg/ ridge	5.66 bc	0.87 c	15.46 c	12.36 b
Chopped rice straw at 2 kg/ ridge +at KP2 ml ⁻¹	6 .00 b	1.14 b	16.80 b	13.80 b
Chopped rice straw at 4 kg/ ridge +at KP2 ml ⁻¹	6.85 b	1.17 b	18.48 b	15.78 ab
Chopped rice straw at 2 kg/ ridge +at KP4 ml ⁻¹	6.50 b	1.23 b	17.88 b	15.03 ab
Chopped rice straw at 4 kg/ ridge +at KP4 ml ⁻¹	7.70 a	1.77 a	19.84 a	17.34 a

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 K= Potassium P= Phosphorus, ridge = 3m² (0.75 m wide × 4 m long)

Table 6: Effect of chopped rice straw and both of potassium and phosphorus foliar application on physical characters and nutritive value of sweet potato tuber

Treatment	Physical characters			Nutritive value					
	Diameter (cm)	Weight (g)	Length (cm)	N %	P %	K %	Protein %	Carotene (mg/g f.w)	Starch %
<i>2017 season</i>									
Control	4.36c	0.185d	17.50 d	1.69 f	0.213e	2.452d	10.56f	5.48 g	18.35 d
Chopped rice straw at 2kg/ridge	4.72bc	0.193c	18.25 c	1.85 d	0.216e	2.497c	11.56f	6.54 f	18.71 d
Chopped rice straw at 4 kg/ ridge	4.91bc	0.200d	19.40 b	1.83e	0.214 e	2.412e	11.43e	6.97 e	21.66 c
Chopped rice straw at 2 kg/ ridge +at KP2 ml ⁻¹	5.10b	0.205c	19.95 b	2.28b	0.236c	3.231b	14.25b	7.11d	31.97 b
Chopped rice straw at 4 kg/ ridge +at KP2 ml ⁻¹	5.40b	0.215bc	22.00 b	2.16c	0.236c	3.226b	13.50b	7.85c	32.80 b
Chopped rice straw at 2 kg/ ridge +at KP4 ml ⁻¹	5.23b	0.210b	21.0ab	2.30b	0.239b	3.300a	14.38c	8.25b	35.03 a
Chopped rice straw at 4 kg/ ridge +at KP4 ml ⁻¹	5.55a	0.230a	22.33 a	2.40a	0.243a	3.318a	15.00a	8.76a	37.31 a
<i>2018 season</i>									
Control	4.60c	163.66d	13.00 d	1.85c	0.219f	2.219e	11.56 c	5.92 g	19.25 d
Chopped rice straw at 2kg/ridge	4.76bc	175.0 c	18.00c	1.93c	0.226e	2.525 d	12.06 c	7.15 f	20.19 c
Chopped rice straw at 4 kg/ ridge	5.03bc	188.33 b	21.00 b	1.90c	0.207g	2.562 d	11.88 c	7.33 e	22.05 c
Chopped rice straw at 2 kg/ ridge +at KP2 ml ⁻¹	5.10bc	191.33b	20.00 b	2.47b	0.236d	3.092 c	15.44 b	8.31 d	32.21 b
Chopped rice straw at 4 kg/ ridge +at KP2 ml ⁻¹	5.22bc	195.0ab	22.33ab	2.42b	0.241c	3.200bc	15.13 b	8.82 c	32.57b
Chopped rice straw at 2 kg/ ridge +at KP4 ml ⁻¹	5.30bc	195.0 ab	22.33ab	2.42b	0.243b	3.282b	15.13 b	8.94 b	32.96 ab
Chopped rice straw at 4 kg/ ridge +at KP4 ml ⁻¹	5.96a	204.66a	23.66 a	2.63a	0.246a	3.412a	16.44 a	9.02 a	36.81a

a,b ... Means followed by different letters are significantly different at $P \leq 0.05$ level, Duncan's multiple range test.

K= Potassium

P= Phosphorus, ridge = 3m² (0.75 m wide × 4 m long)