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2007

(11 11.15) (11.5 12.2) (%81.2 %80.5)
/ 7.3
6.65

Utilization of plant wastes and sheep manure for organic fertilizer production, and its influence on growth of tomato plants

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Abstract

A study was conducted at summer of 2007 to use residuals of Sheep manure, Coantial wastes, sunflower plant, wheat plant, alfalfa plant and corn cobs for organic fertilizer production, and the influence growth of tomato plants. Results Showed that increasing the percentage of emergency, plant height and long of root, by organic fertilizer production from Shumbolan plant and mixture of organic fertilizer by all plants was used in this study to (80.5%, 81.2%), (12.2 cm, 11.5 cm) and (11.5 cm, 11 cm) respective. The organic fertilizer from sun flower increasing the number of leaves to 7.3 leaf/plant. While exceed the mixture increasing diameter of plants to 6.65mm compared with other organic fertilizers.

Ceratophyllum demersum L

(1)

(2)

(6-4)

(3)

(4)

(5)

(7 6)

C/N

(9) .(8)

-1

-2

)

()

:

b7

b6, b5, b4, b3, b2, b1

<i>Ovis aries</i> L	Sheep manure	b 1
<i>Ceratophyllum demersum</i> L	Coastal wastes	b 2
<i>Helianthus annuus</i> L	Sunflower seed discs	b 3
<i>Triticum aestivum</i> L	Wheat straw ()	b 4
<i>Medicago sativa</i> L	Vegetative alfalfa plant	b 5
<i>Zea mays</i> L	Corn cobs	b 6
		b 7

2007/7/9

a2 a1 / 20 10

1

.()

.(1)

(1)

% K	% P	% N	C/N	pH	Ec		
3.3	1.22	5.6	11.2	5.5	10.6		.1
29.	0.92	4.8	11.8	5.8	7.6		.2
2.8	0.94	4.5	12.1	6.0	8.5		.3
2.6	0.82	4.2	12.6	6.3	9.2		.4
3.1	1.20	5.1	11.6	5.9	11.4		.5
2.7	0.86	4.5	12.5	6.2	12.3		.6

.() / 1

()

2008/1/20

/ 1

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(45)

. % -1

.() -2

.() -3

.() -4

. / -5

(RCBD)

.(10)

b2 b7

b7

(2)

(%80.5 %81.2)

(3 %8.85)

(6.65)

b6

7 %82 alb7

alb6 a2b2 a2b7

(3 2) 2.7 %7.7

4.85 11.15 12.2 b2

b2 b7 b6 3.8

11.7 13.7 alb7 a2b2

.alb6 3.3 4.7

% (2)

() ()

						%			A
B	a2	a1	B	a2	a1	B	a2	a1	B
4.2	4.7	3.7	9.15	10.3	8	55.35	48.7	62	b1
5.2	5.7	4.7	12.2	13.7	10.7	80.5	81.3	79.7	b2
4.35	5	3.7	8.65	8	9.3	70.7	72.3	69	b3
3.2	3.7	2.7	6.35	6.7	6	14.0	14.3	13.7	b4
4.5	4.7	4.3	7.65	7.3	8	26.5	27.3	25.7	b5
3	3.3	2.7	4.85	5	4.7	8.85	10	7.7	b6
6.65	6.3	7	11.5	10.7	12.3	81.2	80.3	82	b7
-	4.77	4.1	-	8.81	8.43	-	47.76	48.52	A
LSD (A)= 0.423 LSD (B)= 0.792 LSD (AB)= 1.12			LSD (A)= 1.05 LSD (B)= 2.80 LSD (AB)= 3.82			LSD (A)= 2.995 LSD (B)= 5.604 LSD (AB)= 7.925			

() (3)

()			/			A
B	a2	a1	B	a2	a1	B
7.83	7	8.7	4.5	4.7	4.3	b1
11.15	11	11.3	5.5	5.3	5.7	b2
10.15	10	10.3	7.3	7	7.7	b3
4.3	3.7	5	4.5	4.3	4.7	b4
6	6.3	5.7	4.7	5	4.3	b5
3.8	4.3	3.3	3.7	3.7	3.7	b6
11	10.3	11.7	7	6.7	7.3	b7
	7.5	8		5.23	5.38	A
LSD (A) = 0.663 LSD (B) = 1.242 LSD (AB) = 1.756			LSD (A) = 0.644 LSD (B) = 1.204 LSD (AB) = 1.70			

/ 7.3 / b3 (3)

b6 / 7 b7

3.7 / .

3.7 / a1b3 / 7.7

a2 .a2b6 a1b7

a1 4.77 (/ 20)

(b2) .(2) . 4.1

(b7)

(6 - 4)

(2)

(3)

(1)

b7 (13 12 11 2)

) b3 .

(3) (3) / (

(1)

/

.b7

) b6

(1) . (

.(2)

.2001 . -1

.30 - 26 :(3)

.2003 . -2

-1 *Ceratophylm demeresm* L.

.31 - 23 :(1) 1 .

.2003 . -3

/ - . .

- .2001 . -4
- / - .2007 . -5
- (*Brassica oleracea*. Var. Botrytis)
- .41 - 25 :(1)7
- .1996 . -6
- / - .2007 . -7
- K N
- / - .2008 . -8
- (*Solanum* .145 - 136 :(1)6 .*tuberosum* L.)
- .2008 . -9
- .1980 . -10
- / - .2003 . -11
- 2 *Ceratophyllum demersum* L.
- .38 - 32 :(1) 1
- 12- Harawati, T. 1994. Effect of P fertilizer and organic matter on growth and yield of potato (*Solanum tuberosum* L.). Acta Hort. (ISHS) 369: 340 - 343. <http://www.actahort.org>.
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