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INFLUENCE OF THE DOSAGE OF GOAT DUNG AND SAWDUST SENGON WOOD (ALBIZIA FACATARIA) AGAINST THE PRODUCTIVITY OF THE CHICORY PLANT (BRASSICA JUNCEA L.) ON THREE DIFFERENT SOIL TYPES IN POLYBAG

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ABSTRACT

The limitations of the media grows and diversity of commodities in a narrow area, resulting in the production of the plant is not optimal and not sustainable. The limitations of the media in the form of planting land can be anticipated by utilizing organic ingredients from the results of the activities performed by the public. An alternative workaround is to search for materials in addition to ground and without the need for extensive land to farm. Plant Mustard (*Brassica juncea* i.) is a horticultural commodity vegetable leaves are much favored by the public because it tastes good, is easy to come by, and it has been not too difficult. Plant mustard greens contain lots of vitamins and nutrition that is needed by the human body. Special purpose Knowing the exact formulation dose against dirt and sawdust wood goat sengon against crop productivity sawi, Mengetuhui what constraints affect the growth process plant mustard greens. The design used in this study was a randomized Design Group (RAK) and three times (3) repeats. Treatment in a high-rise in factorial. The treatments tested consists of two factors, namely: the first Factor is the goat's Dung (K) i.e.: K0:0 grams, K1:20 grams, K2:40 grams, K3:60 grams, the second Factor is the Wood Sawdust Sengon (*Albizia facataria*) (S) IE: S0:0 grams, S1:20 grams, S2:40 grams, S3:60 grams. The experiment consists of 16 units of treatment combinations and each treatment was repeated three times, so that the required 48 polybag experiment. Results of the study showed that giving shit goat and wood sawdust sengon can increase growth and crop chicory grown real interaction occurs on plant colonization chicory on treatment goat droppings and concentration the concentration of sawdust wood sengon, goat droppings on the concentration of 60 gr/plant showed concentrations of goat droppings and concentration of sawdust wood sengon 60 gr/plant shows dose soil type Railaku is a kind of land suitable for cultivation of crops chicory in lowlands climate is dry. Goat Droppings and concentration of Sawdust Wood Sengon influential real against High parameters of crops Chicory, the number of plant leaf chicory at age 14, 21 day after cultivatin (DAP), 28 DAP and 35 DAP, whereas concentrations of dirt and sawdust wood goat sengon influential real against fresh heavy economical parameters, length of root, stem diameter and fresh weight of total crops chicory at 35DAP. and the combination of goat dung and sawdust wood sengon real effect on soil pH Aeroporto Comoro, Railaku and Kristorei.

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INTRODUCTION

The limitations of the media grows and diversity of commodities in a narrow area, resulting in the production of the plant is not optimal and not sustainable. The limitations of the media in the form of planting land can be anticipated by utilizing organic ingredients from the results of the activities

performed by the public. An alternative workaround is to search for materials in addition to ground and without the need for extensive land to farm. Various planting medium used should remain supportive of growth and development of plants so that productivity can be better. Organic ingredients have the potential to be able to save water and rich pore water makes the growth of seedlings in level germination very nice, the land

will always be loose so the new roots grow fast and thick. Plant Mustard (*Brassicajuncea*L.) is one of the horticultural commodity vegetable leaves are much favored destinations with by the public because it tastes good, is easy to come by, and it has been not too difficult. Plant mustard greens contain lots of vitamins and nutrition that is needed by the human body (Kurniadi, 1992). Given the economic value and benefits for health, then it is reasonable in an effort to increase the production of mustard continued to do. Vegetables mustard greens can be grown in the lowlands and Highlands, enough sunlight, good soil aeration and soil pH of 5.5-6 (Nurhayati, 1986).

The aspects influenced the use a poly bag, especially in Timor-Leste capital of Dili especially in vegetable cultivation is still the obstacle most people who own land in the narrow yard home to make some reluctant have plants. The reason people don't have land. To have a good home and healthy, the atmosphere of the House should be decorated with a wide variety of plants with a potluck in the land area of the courtyard house with mustard cultivation in polybag because aside from conserve space planting also cheaper treatment compared to other media. The problems that was plagued the community of Timor-Leste, in particular people who live in the city of Dili is the problem of water shortage, for cultivation of cabbage. Another alternative for reducing the utilization of water for the process of watering cultivation of mustard is by utilizing wood sawdust sengon (*Albiziafacataria*) was chosen because it can easily absorb water thus reducing optimum utilization of water is excessive in the cultivation of cabbage. Sawdust sengon is waste from wood chainsaw industry activity. Because of this waste was originally considered to cause problems such as decomposition and interfere with the beauty of the environment, the end I tried to make use of sawdust which can be set as a medium for planting. Sawdust was selected because it can easily absorb water with optimal. Mix the soil with sawdust sengon u.s. planting media can also make the surrounding land became more fertile and nutrient elements absorption becomes younger. And the use media are planting sawdust typically used in a poly bag. Powder sengon saws in the select as a medium for planting because the texture is light, so the roots will grow and grow faster. Sawdust sengon can also store well water as well as land.

The excess sawdust sengon more is because it has a high porosity levels but can still set its density so that it can set the ratio of water provided. Most of the people of Timor-Leste us long us it still using inorganic fertilizers us another alternative to improve the fertility of land and increase the productivity of other plants. When the use of inorganic fertilizers in excess will be badly soil quality and crop yield also gained will impact public health against excessive consumption. To address the issue of the use of inorganic fertilizers that become problems of the community of Timor-Leste, in particular, then needed another alternative in lieu of inorganic fertilizers and make use of organic fertilizers that is in Timor-Leste. Wrong alternative to reduce inorganic fertilizers is to capitalize shit goat. Goat droppings can provide macro nutrient elements (N, P, K) and micro (Ca, Mg, S, Na, Fe, Cu, Mo) (Linga,1991). Goat droppings contain organic material that can provide nutrient substances to plants through the process of decomposition (decomposition), this process occurs gradually by releasing a simple organic material for plant growth (Hartatik et al., 2010).

MATERIAL AND METHODS

The design used in this study was a randomized Design Group (RAK) and three times (3) repeats. Treatment on the bunk in the factorial. The treatments tested consists of two factors, namely: the first Factor is the goat's Dung (K) I.e.: K0:0 grams, K1:20 grams, K2:40 grams, K3:60 grams and the second Factor is the Sawdust Sengon Wood (*Albiziafacataria*) (S) IE: S0:0 grams, S1, S2:20 grams : 40 grams, S3:60 grams. The experiment consists of 16 units of treatment combinations and each treatment was repeated three times, so that the required 48 polybag experiment. The variables Observed Against High Mustard Plant Plant mustard greens (cm), number of Leaf Mustard Plant Remains (Strands), the weight of Fresh mustard greens Total (leaf-Root), the length of the root of the plant Stem Diameter, Plant mustard greens mustard greens, Fresh Heavy Economical Plant Chinese cabbage (leaf-Stem), pH Ground. The Data collected will be analyzed with variant analysis (analysis of the multiform prints) in accordance with the experimental design was used. If there is a single factor influence then it will analysis with Real honest with Different test levels BNJ 5% and test Different of LSDReal extent with Smallest 5% (Sastrosupadi, 2000). While there are influences between the interaction it will do a follow-up test with test Duncan Multiple Range level 5 DMRT (Hanafiah, 2003).

RESULTS AND DISCUSSION

High Crop Chicory (cm): Concentration with goat droppings increase crop chicory high for real at age 14, 21, 28 and 35 DAP compared without fertilization, plant the highest chicory 14 DAP (21.31 cm) on the concentration of goat droppings 60 gr/plant , but not real high against different crops chicory with goat dung concentration 40 gr/plant(20.25 cm). So also on the concentration of goat droppings 20 gr/plant (18.88 cm) did not differ markedly with goat dung concentration 0 gr/plant (19.06 cm). Chicory plants the highest age 21 DAP (35.94 cm) on goat dung 60 gr/plant , but not real high against different crops chicory with goat dung concentration 40 gr/plant(33.88 cm) and do not differ markedly against the high plant mustard greens White goat droppings with a concentration of 20 gr/plant(33, 56cm) and not a real high against different crop chicory with goat dung concentration 0 gr/plant (34.81 cm). on the highest chicory plant age 28 DAP with high crop chicory (52.88 cm) with a concentration of goat droppings 60 gr/plant and at plants chicory highest age 35 DAP with high crop chicory (77.38 cm) (Table 5.2). Fertilization with sawdust wood sengon increase high crop chicory for real good age 14, 21, 28 and 35 DAP compared to without fertilization, plant the highest chicory 14 DAP (21.38 cm) on the concentration of wood sawdust sengon 60 gr/plant , crop chicory highest age 21 DAP (35.63 cm) on the concentration of sawdust wood sengon 40 gr/plant , but does not vary with the concentration of sawdust wood sengon 40 gr/plant(34.31 cm) and do not differ markedly the concentration of sawdust wood sengon 20 gr/plant (34.50 cm) and do not differ markedly with wood sawdust sengon concentration 0 ml/plant (33.75 cm) highest chicory plant age 28 DAP (51.69 cm) on the concentration of sawdust wood sengon 60 gr/plant , but not real high against different crops chicory on the concentration of sawdust wood sengon 40 grams and 20 gr/plant and crop chicory highest age 35 DAP (74.63 cm) on the concentration of pollen saws wood sengon 60 gr./plant (Table 1).

Table 1. High (cm) Average Crops Chicory due to a combination of Goat Dung andSawdust Wood Sengon on several Different Age

Treatment	14 HST	21 HST	28 HST	35 HST
K0S0	6.00a	10.50ab	14.83a	18.75a
K0S1	6.00a	11.17abcd	16.17bcd	20.58b
K0S2	6.33ab	11.33abcd	16.83bcdef	23.33cd
K0S3	6.75abc	12.00cd	17.00cdef	24.17de
K1S0	6.17a	11.50bcd	16.42bcde	20.58b
K1S1	6.00a	11.50bcd	15.67ab	23.33cd
K1S2	6.58abc	11.00abc	16.83bcdef	23.58cde
K1S3	7.08bc	12.00cd	17.33defg	25.92fgh
K2S0	6.33ab	12.08cd	16.83bcdef	22.00bc
K2S1	6.33ab	10.17a	15.75ab	23.75de
K2S2	6.75abc	11.83cd	17.33defg	24.58def
K2S3	7.17bc	11.67bcd	17.83fg	26.42gh
K3S0	6.92bc	12.33d	17.00cdef	23.17cd
K3S1	6.83abc	11.92cd	16.08bc	24.67def
K3S2	7.33c	11.00abc	17.50efg	25.00efg
K3S3	7.42c	12.25cd	18.33g	26.67h

Description: a number that is followed by the same letter in every different column not reality test DMRT5%

Based on a test of DMRT 5% at tabel1. on top of that, the influence of the treatment concentration of dirt and sawdust wood goat sengon gives good results against higher crop chicory to all treatments except treatment without granting of fertilization . Growing old is more and more growing hormone needed to process development and plant added chicory. It is seen that high crop chicory at the age of 14,,21 28 HST HST HST and 35. Average plant height was higher on a combination treatment (K3S3) real and distinct treatment without fertilization (KOSO). Research results show that give concentration of goat droppings 60 grams/concentration plants with sawdust wood sengon 60 grams/plant gives the highest value with the average value of 26.67 cm or increased by 6%. Organic fertilizer to increase the grant of nutrient elements in soil.

The Number ofPlant Leaf Chicory (Strands): Goat Droppings interaction between Concentration and concentration of sawdust wood sengon influential real ($P < 0.05$) against the amount of plant leaf chicory age 14DAP and 21 sht influential but not real. ($P \geq 0.05$) against the number of plant leaf chicory age 28 dan35 DAP. Goat Droppings concentration from 0 gr/plant up to 60 gr/plantis accompanied by an increase in the concentration of sawdust wood sengon turned out to produce a number of strands of plant leaf chicory 14, 21, 28 and 35 DAP which is ever increasing. ($P > 0.05$). The increased concentration of sawdust wood sengon 0 gr/plant up to 60 gr/plantis accompanied by an increase in the concentration of the impurities of higher plants also produce Goat chicory 14, 21, 28 and 35 DAP which is ever increasing. The amount of mustard plants HTH white leaf age 14 DAP (5.00 strands), age 21 DAP (6.00 strands), age 28 DAP (8.00 strands) and age 35 DAP (9.33 strands) who reached on the concentration of goat Droppings 60 gr/plantand wood sawdust sengon concentration/plant (60 gr). (Table 2). Based on a test of DMRT 5% at tabel2. on top of that, the influence of the treatment concentration of dirt and sawdust wood goat sengon gives good results against higher crop chicory to all treatments except treatment without granting of fertilization. Growing old is more and more growing hormone needed to process development and plant added chicory. It is seen that high crop chicory at the age of 14,,21 28 HST HST HST HST and 35. Average plant height was higher on a combination treatment (K3S3) real and distinct treatment without fertilization (KOSO).

Table 2. Average Number ofLeaves (Strands) ofCrops Chicory due to a Combination ofGoat Dung andSawdust Wood Sengon onSeveral Different Age

Treatment	14 HST	21 HST	28 HST	35 HST
K0S0	2.67ab	3.67ab	5.33a	6.33a
K0S1	3.00abc	4.33bcd	5.67a	7.33a
K0S2	4.00de	4.33bcd	6.00a	8.00a
K0S3	3.67cd	4.33bcd	7.00a	8.33a
K1S0	3.00ab	4.00abc	6.00a	6.67a
K1S1	2.33a	3.33a	6.00a	8.00a
K1S2	4.00de	4.67cd	6.33a	8.00a
K1S3	4.00de	5.00de	7.33a	8.33a
K2S0	3.33bcd	4.00abc	6.33a	7.00a
K2S1	3.33bcd	5.00de	6.67a	8.00a
K2S2	4.00de	5.00de	6.33a	8.33a
K2S3	4.67ef	5.67ef	7.67a	8.67a
K3S0	3.33bcd	4.33bcd	6.33a	7.33a
K3S1	4.00de	5.00de	7.00a	8.33a
K3S2	3.33bcd	5.00de	7.33a	8.33a
K3S3	5.00f	6.00f	8.00a	9.33a

Description: a number that is followed by the same letter in every different column not reality test DMRT5%

Research results show that the awarding of the concentration of goat droppings 60 grams/concentration plants with sawdust wood sengon 60 grams/plant gives the highest rating with an average score of 9.33 cm or increased by 6%. Organic fertilizers to increase the grant of nutrient elements in soil.

Table 3. Influence of Combination of goat Dung and Treatment dosage of Sawdust Wood Sengon Against Fresh Economic Weight Per Plant Chicory At Age 35 the day after the Move the cropping

Goat droppings (gr/plant)	Wood sawdust sengon (gr/plant)			
	0 gr (S0)	20 gr (S1)	40 gr (S2)	60 gr (S3)
35 HSPT				
0 gr (PKS0)	1.75a	2.33a	3.00b	3.67c
	A	A	B	C
20 gr (PKS1)	2.83b	3.42c	4.00d	5.00e
	B	C	D	E
40 gr (PKS2)	3.75c	4.17d	4.33d	5.00e
	C	D	D	E
60 gr (PKS3)	3.75c	4.25d	4.83d	5.67e
	C	D	D	E

Description: The average value that is followed by the same letter at age 35 days after planting was moving did not differ markedly in the extent the significant LSD5%

Fresh weight Per Plant Economically Chicory (gr): Fresh weight per plant economically chicory has increased with concentration of droppings of goats and sengon wood sawdust. Goat droppings on the concentration of 60 gr/plant fresh weight showed economical per crop chicory (13.88 gr), in contrast with the results of the fresh weight per plant economically chicory (12.94 gr) with goat dung per plant economically chicory (11.44 grams) with a concentration of goat droppings 20 gr/plant and different fertilization without real with 0 gr/plant (8.06 gr). (Table 5.4). On sawdust wood sengon 60 gr/plantfresh weight showed economical per crop chicory (14.50 gr), in contrast with the real concentration of sawdust wood sengon 40 gr/plant(12.13 gr), in contrast with real wood sawdust sengon 20 gr/plant (10.63 gr) real and distinct with tampa wood sawdust sengon 0 gr/plant (9.06 gr). Goat droppings interaction concentration and sengon different wood sawdust is not real ($P \geq 0.05$) against fresh economic weight per plant chicory. Goat droppings concentration with soil type Aeroportu gives a very real influence ($P < 0.01$) on a fresh weight per plant economically chicory age 35 day past harvest (DPH), a combination of goat droppings concentration

with soil type Railaku influence a very real ($P < 0.01$) on a fresh weight per plant economically chicory age 35 DPH, goat droppings and concentration with soil type Cristorei provides a very real influence ($P < 0.01$) on a fresh weight per plant economically chicory at the age of 35 DPH. Concentrations between wooden sawdust sengon with soil type aeroportu gives a very real influence ($P < 0.01$) on a fresh weight per plant economically chicory age 35 DPH, Concentrations between wooden sawdust sengon with soil type Railaku gives a very real influence ($P < 0.01$) on a fresh weight per plant economically chicory age 35 DPH, and Concentrations between wooden sawdust sengon with soil type Cristo Rei gives a very real influence ($P < 0.01$) on a fresh weight of economical per crop chicory at age 35 DPH (table 5.6). Goat droppings interaction and concentration of sawdust wood sengon influential real ($P \geq 0.05$) Fresh against Heavy Economical Per Crop Chicory at 35DAP (Table 3). Based on test LSD5% on table 3. on top of that, the influence of the treatment concentration of dirt and sawdust wood goat sengon fresh weight affect the economy per crop chicory at age 35 DAP. This is because the NPK nutrient elements of goat droppings that led to productivity especially fresh economic weight per plant chicory age 35 DAP began to suffer from the addition of fresh economic weight per plant chicory. Wood sawdust sengon concentrations with different concentration can also add fresh weight per plant economics chicory because humidity caused by compound sellulosa, ligning an easily absorbs water so you can help the humidity of the soil so that the process of absorption of NPK elements especially nutrient that heavy fresh economic productivity per crop chicory is also increasing.

The Length of Roots per Plant Chicory (cm): The length of roots per plant chicory has increased with concentration of dirt and sawdust wood goat sengon. Goat feces at concentrations of 20 gr/plant shows the length of roots per plant chicory (29.63 cm) and different unreal with long root per plant chicory with goat dung concentration 60 gr/plant (28.75 cm) and differently is not real against the length of the root of the chicory plant per concentration of goat droppings with 0 gr/plant (28.44 cm) and different unreal with goat dung concentration 40 gr/plant (28.31 cm) (Table 13). On the concentration of sawdust wood sengon 60 gr/plant shows the length of roots per plant chicory (33.50 cm), with different concentrations of sawdust wood sengon 40 gr/plant (29.69 cm) and different real wood sawdust with a concentration sengon 20 gr/plant (27.63 cm) real and distinct with tampa wood sawdust sengon concentration 0 gr/plant (24.31 cm). Goat droppings interaction concentration and the concentration of different sengon wood sawdust is not real ($P \geq 0.05$) against length of roots per plant chicory. Goat droppings concentration with soil type Aeroportu real influence ($P < 0.05$) on the length of roots per plant chicory age 35 DPH, goat shit Concentration with soil type Railaku exert influence are not real ($P \geq 0.05$) on the length of roots per plant chicory age 35 DPH nor goat droppings Concentration with soil type Cristorei exert influence are not real ($P \geq 0.05$) on the length of roots per plant chicory age 35 DPH. Wood sawdust sengon concentration with soil type Aeroportu real influence ($P < 0.05$) on the length of roots per plant chicory age 35 DPH, wood sawdust sengon Concentration with soil type Railaku give devastating effects real ($P < 0.01$) on the length of roots per plant chicory age 35 DPH, so too Concentration sengon wood sawdust with soil type Cristo Rei gives a very real influence ($P < 0.01$) on the length of roots per plant chicory age 35 DPH (Table 4).

Table 4. Influence of Combination of goat Dung and Treatment dosage of Sawdust Wood Sengon Against root Length Per Crop Chicory At Age 35 the day after the Move the cropping

Goat droppings (gr/plant)	Wood sawdust sengon (gr/plant)			
	0 ml (S0)	20 gr (S1)	40 gr (S2)	60 gr (S3)
35 HSPT	-----gr-----			
0 gr (K0)	7.42a A	9.50c C	10.08d D	10.92d D
20 gr (K1)	8.08b B	9.50c C	10.58d D	11.33e E
40 gr (K2)	8.17b B	8.83b B	9.17c C	11.58e E
60 gr (K3)	8.75b B	9.00c C	9.75c C	10.83d D

Description: the average value that is followed by the same letter at age 35 days after planting was moving did not differ markedly in the extent the significant LSD5%.

Based on test LSD5% on the table 4. on top of that, the influence of the treatment concentration of dirt and sawdust wood goat sengon affects the length of roots Per Plant Chicory at age 35 DAP. This is because the NPK nutrient elements of goat droppings that led to productivity especially long root of the Chicory Plant Per age 35 DAP began to suffer from the addition of the root length Per Crop Chicory. Wood sawdust sengon concentrations with different concentration can also add length of roots Per Plant Chicory because humidity caused by compound sellulosa, ligning an easily absorbs water so that it can help the humidity soil nutrient absorption process so that especially elements NPK well so long root productivity Per Crop Chicory is also increasing.

Stems per plant is the Diameter of the Chicory (mm): Diameter of stem per plant chicory has increased with concentration of dirt and sawdust wood goat sengon. Goat droppings on the concentration of 60 gr/plant shows the diameter of the stem per plant chicory (6.44 mm) and stem diameter markedly different per crop chicory with goat dung Concentration 40 gr/plant (5.56 mm) and different is not real against the diameter of the rods per crop chicory with goat dung Concentration gr/plant (5.13 mm) and different Concentration with no real shit goat 0 gr/plant (4.75 mm) (table 14). on the concentration of sawdust wood sengon 60 gr/plant shows the diameter of the stem per plant chicory (8.00 mm), unlike real wood sawdust with a concentration sengon 40 gr/plant (6.06 mm) and different real wood sawdust with a concentration sengon 20 gr/plant (4.25 mm) and different concentrations of not with sawdust wood sengon 0 gr/plant (3.56 mm). Goat droppings interaction concentration and the concentration of different sengon wood sawdust is not real ($P \geq 0.05$) against Rod diameters per chicory plants). Goat droppings concentration with soil type aeroportu real influence ($P < 0.05$) in diameter stems per plant age 35 DPH, goat shit Concentration with soil type Railaku give a real influence ($P < 0.05$) on the diameter of the rod per plant age 35 DPH, goat droppings and concentration with soil type Cristo Rei memberikan real influence ($P < 0.05$) in diameter stems per plant at the age of 35 DPH. Wood sawdust sengon concentration with soil type Aeroportu gives a very real influence ($P < 0.01$) in diameter stems per plant age 35 DPH, wood sawdust sengon Concentration with soil type Railaku give devastating effects real ($P < 0.01$) in diameter stems per plant age 35 DPH, and wood sawdust sengon Concentration with soil type Cristorei provides a very real influence ($P < 0.01$) in diameter stems per plant at the age of 35 DPH. Goat droppings interaction and concentration of sawdust wood

sempena berpengaruh nyata ($P \geq 0.05$) terhadap diameter batang Per Plant Chicory at 35DAP (Table 5).

Table 5. Influence of combination of Treatment Between doses of Goat Dung and Wood Sawdust Sengon Dose Against Rod Diameters Per Crop Chicory At Age 35 the day after the Move the cropping

Goat droppings (gr/plant)	Wood sawdust sengon (gr/plant)			
	0 ml (S0)	20 gr (S1)	40 gr (S2)	60 gr (S3)
35 HSPT	-----gr-----			
0 gr (K0)	0.83a	1.00b	1.83b	2.67c
	A	B	B	C
20 gr (K1)	1.33b	1.17b	1.83b	2.50c
	B	B	B	C
40 gr (K2)	1.17b	1.67b	2.08c	2.50c
	B	B	C	C
60 gr (K3)	1.42b	1.83b	2.33c	3.00d
	B	B	C	D

Description: the average value that is followed by the same letter at age 35 days after planting was moving did not differ markedly in the extent the significant LSD5%

Berdasarkan uji LSD5% pada tabel 5. di atas itu, pengaruh dari perlakuan konsentrasi kotoran kambing dan serbuk gergaji sengon terhadap diameter batang Per Plant Chicory pada umur 35 DAP. Hal ini karena unsur hara NPK yang ada pada kotoran kambing yang menyebabkan produktivitas terutama diameter batang Per Plant Chicory pada umur 35 DAP mulai menderita karena penambahan diameter batang Per Plant Chicory. Konsentrasi serbuk gergaji sengon dengan konsentrasi yang berbeda-beda juga dapat mempengaruhi diameter batang Per Plant Chicory karena kelembaban yang disebabkan oleh senyawa selulosa, lignin yang mudah menyerap air sehingga dapat membantu kelembaban tanah sehingga proses penyerapan unsur hara NPK terutama unsur hara yang mempengaruhi produktivitas Per Plant batang diameter Per Plant Chicory juga meningkat.

Fresh weight Per Plant Total Chicory (gr): Berat segar per tanaman total chicory telah meningkat dengan konsentrasi dan konsentrasi kotoran kambing serbuk gergaji sengon. Kotoran kambing pada konsentrasi 60 gr/plant berat segar menunjukkan total per tanaman chicory (14.94 gr) dan berbeda nyata dengan berat segar total per tanaman chicory dengan kotoran kambing konsentrasi 40 gr/plant (12.31 gr) nyata dan berbeda nyata dengan berat segar per tanaman chicory total per dosis dengan konsentrasi kotoran kambing 20 gr/plant (10.44 gr) dan berbeda nyata tanpa fertilisasi 0 gr/plant (10.00 gr). Pada konsentrasi serbuk gergaji sengon 60 gr/plant berat segar menunjukkan total per tanaman chicory (14.75 gr), berbeda nyata dengan konsentrasi serbuk gergaji sengon 40 gr/plant (12.50 gr) nyata dan berbeda nyata dengan konsentrasi serbuk gergaji sengon 20 gr/plant (11.31 gram) serta berbeda nyata dengan tanpa fertilisasi 0 konsentrasi serbuk gergaji sengon gr/plant (9.13). Interaksi konsentrasi kotoran kambing dan konsentrasi serbuk gergaji sengon yang berbeda-beda terhadap berat segar per tanaman total chicory. Konsentrasi kotoran kambing dengan jenis tanah Aeropertu memberikan pengaruh yang sangat nyata ($P < 0.01$) pada berat segar per tanaman total chicory, konsentrasi kotoran kambing dengan jenis tanah Aeropertu memberikan pengaruh yang sangat nyata ($P < 0.01$) pada berat segar per tanaman total chicory, konsentrasi kotoran kambing dengan jenis tanah Railaku memberikan pengaruh yang sangat nyata ($P < 0.01$) pada berat segar per tanaman total chicory, dan konsentrasi kotoran kambing dengan jenis tanah Cristorei memberikan pengaruh yang sangat nyata ($P < 0.01$) pada berat segar per tanaman total chicory. Konsentrasi kotoran kambing dengan jenis tanah Aeropertu memberikan pengaruh yang sangat nyata ($P < 0.01$) pada berat segar per tanaman total chicory.

plants total per age 35 DPH, so does the concentration of sawdust wood sengon with soil type Railaku provides a very real influence ($P < 0.01$) on a fresh weight of chicory plants total per age 35 DPH and wood sawdust sengon concentration with soil type Cristorei gives a very real influence ($P < 0.01$) on a fresh weight of chicory plants total per age 35 DPH (Table 6).

Table 6. Influence of Combination of goat Dung and Treatment dosage of Sawdust Wood Sengon Against Fresh Weight Per Plant Total Chicory At Age 35 the day after the Move the cropping

Goat droppings (gr/plant)	Wood sawdust sengon (gr/plant)			
	0 gr (S0)	20 gr (S1)	40 gr (S2)	60 gr (S3)
35 HSPT	-----gr-----			
0 gr (K0)	2.58a	3.00b	3.42b	4.33d
	A	B	B	D
20 gr (K1)	2.83b	3.42b	3.58c	4.08d
	B	B	C	D
40 gr (K2)	3.00b	4.08d	4.33d	5.00e
	B	D	D	E
60 gr (K3)	3.75b	4.58d	5.33e	6.25f
	B	D	E	F

Description: the average value that is followed by the same letter at age 35 days after planting was moving did not differ markedly in the extent the significant LSD5%.

Berdasarkan uji LSD5% pada tabel 6. di atas itu, pengaruh dari perlakuan konsentrasi kotoran kambing dan serbuk gergaji sengon terhadap berat segar per tanaman total chicory pada umur 35 DAP. Hal ini karena unsur hara NPK yang ada pada kotoran kambing yang menyebabkan produktivitas terutama berat segar per tanaman total chicory pada umur 35 DAP mulai menderita karena penambahan berat segar per tanaman total chicory. Konsentrasi serbuk gergaji sengon dengan konsentrasi yang berbeda-beda juga dapat mempengaruhi berat segar per tanaman total chicory karena kelembaban yang disebabkan oleh senyawa selulosa, lignin yang mudah menyerap air sehingga dapat membantu kelembaban tanah sehingga proses penyerapan unsur hara NPK terutama unsur hara yang mempengaruhi berat segar per tanaman total chicory juga meningkat.

Soil pH: Fertilisasi kotoran kambing dengan konsentrasi terhadap pH Aeropertu pada dosis 20-60 gr/plant (7.00). Fertilisasi dengan serbuk gergaji sengon konsentrasi terhadap pH Aeropertu pada dosis 20-60 gr/plant (7.00) (tabel 5.10). Fertilisasi kotoran kambing dengan konsentrasi terhadap pH Railaku pada dosis 20 gr/plant (6.5). Fertilisasi dengan serbuk gergaji sengon konsentrasi terhadap pH Railaku pada dosis 60 gr/plant (6.5) (tabel 5.10). Fertilisasi kotoran kambing dengan konsentrasi terhadap pH Cristorei pada dosis 20-60 gr/plant (7.00). Fertilisasi dengan serbuk gergaji sengon konsentrasi terhadap pH Cristorei pada dosis 60 gr/plant (7.00) (tabel 5.10). Hasil analisis pH tanah setelah panen menunjukkan hasil yang lebih rendah dari hasil analisis pH tanah. Berdasarkan uji DMRT 5% pada tabel 7. di atas itu, pengaruh dari perlakuan konsentrasi kotoran kambing dan serbuk gergaji sengon terhadap pH tanah 3 jenis tanah yang berbeda-beda. Hal ini karena unsur hara NPK yang ada pada kotoran kambing menyebabkan pH tanah 3 jenis tanah yang berbeda-beda mulai mengalami perubahan pH tanah 3 jenis tanah yang berbeda-beda. Konsentrasi serbuk gergaji sengon dengan konsentrasi yang berbeda-beda juga dapat mempengaruhi pH tanah 3 jenis tanah yang berbeda-beda karena kelembaban yang disebabkan oleh senyawa selulosa, lignin yang mudah menyerap air sehingga dapat membantu kelembaban tanah sehingga dapat membantu perubahan pH tanah 3 jenis tanah yang berbeda-beda.

Table 7. Influence of the Interaction Between Treatment and dosage of goat Droppings Sawdust Wood sencion Against pH three different types of soil on the growth and development of the Chicory Plant

Goat droppings (gr/plant)	Wood sawdust sencion (gr/plant)			
	0 ml (S0)	20 gr (S1)	40 gr (S2)	60 gr (S3)
	-----pH Tanah-----			
0 gr (K0)	7.53b	6.67a	6.67a	6.83a
	B	A	A	A
20 gr (K1)	6.83a	7.00a	7.00a	7.00a
	A	A	A	A
40 gr (K2)	6.83a	6.83a	6.83a	7.00a
	A	A	A	A
60 gr (K3)	6.83a	7.00a	6.83a	7.00a
	A	A	A	A

Description: the average value that is followed by the same letter are not unlike the real extent of significant DMRT at 5%.

The relationship between the concentration of goat droppings with 3 different types of land against the weight of fresh total per crop chicory served on analysis results showed that the granting of goat dung on soil type optimal Aeroportu obtained at concentrations of goat droppings 60 gr/plant can produce fresh weight per plant of total (5 gr), gift of concentration of impurities the goat on the type of ground the optimal Railaku indicate goat droppings on the concentration of 60 gr/plant fresh weight per plant of total (5 gr). Similarly, the granting of goat droppings concentration in soil type Cristo Rei obtained at optimal concentrations of goat droppings 60 gr/plant fresh weight per plant of total (5 gr). It means the granting of goat droppings concentration 0 gr/plant up to 60 gr/plant on three different soil types can increase total per plant fresh weight of chicory. The relationship between the concentration of gergai wood powder sencion with 3 different types of land against the weight of fresh total per crop chicory served on analysis results indicate that the concentration of sawdust wood sencion on soil type Aeroportu concentration obtained at optimal sawdust wood sencion 60 gr/plant can yield heavy fresh chicory plants total per registration (5 gr), the grant wood sawdust sencion concentrations on soil type optimal Railaku dipero leh on the concentration of sawdust wood sencion 60 gr/plant fresh weight total per plant of chicory (6 grams). So also on the concentration of sawdust wood sencion soil type Cristo Rei concentration obtained at optimal sawdust wood sencion 60 gr/plant fresh weight total per plant of chicory (5 gr). This means that the grant wood sawdust sencion concentration from 0 gr/plant up to 60 gr/plant on three different soil types can increase total per plant fresh weight of chicory.

Conclusion

1. The awarding of the dirt and sawdust wood goat sencion can increase growth and crop chicory grown in the hamlet of moris foun, Suco Comoro, Postu Administrativu Dom Aleixo, Municipio Dili.
2. the real interaction Occurs on plant colonisation chicory on goat droppings and concentration of treatment concentrations of sawdust wood sencion.
3. on the concentration of goat droppings 60 gr/plant shows the optimum concentration of goat's dung with maximum results and concentration of sawdust wood sencion 60 gr/plant shows the optimum dose with maximum results.

4. Soil type Railaku is a type of land suitable for cultivation of crops chicory ditanah dry land.

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