I. INTRODUCTION

1.1 Background

Indonesia is a country with a dense and rapidly growing population. With a growth rate of 1.49 percent per year, Indonesia has reached a population of 250 million people in 2013. This ever-increasing number necessitates the satisfaction of higher requirements. Food is among the requirements that must be fulfilled. Vegetables are one of the dietary requirements, as they contribute to the community's survival. Because the nutritional value of vegetable plants is essential for human sustenance. As a result, vegetable crops such as lettuce are particularly popular in Indonesia. Because of its crunchy and delicious taste, it is suitable for consumption by cooking or eating it raw, as Indonesian commonly referred to as *lalapan* (Rukmana, 2005).

Lettuce (Lactuca sativa L.) is a horticultural commodity that has good prospects and commercial value. It also has bright prospects for development. The main appeal of this plant is its short harvest season, wide market, and generally steady prices. The increased demand for fresh veggies in the markets demonstrates this. This is due to an increase in demand for vegetables as a result of increased public knowledge of nutritional needs. Furthermore, leaf vegetables are a good source of essential vitamins and minerals for the human body, and they also provide a lot of fiber. According to the data contained in the list of food compositions published by the Directorate of Nutrition, Ministry of Health, the composition of food substances contained in every 100 g of fresh weight of lettuce contains 1.2 g of protein; 0.2 g fat; 15 calories; 2.9 g carbohydrates; 22 mg Ca; 25 mg P;0.5 Fe; 540 g of vitamin A; 0.04 mg of B vitamins; 8 mg of vitamin C; 94.8 g of water (Haryanto et al, 2006).

According to the North Sumatra BPS (Central Bureau of Statistics, 2014), the demand for lettuce is currently growing as a result of consumer exports and imports. This pushes farmers to optimize lettuce cultivation to boost production. In 2014, Berastagi District, Karo Regency produced 1,746,867 tons of rice with a harvested area of 432,239 hectares. This is a decrease from 2011, when production was 1,919,786 tons with a harvested area of 538,847 hectares.

Lettuce can grow both in the highlands and lowlands. Lettuce can also grow well on various types of soil, both sandy loam, dusty loam, but the best (ideal) is sandy loam with organic fertilizer. In other words, growing lettuce is very easy if there is organic matter available in the soil and sufficient sunlight and not waterlogged (Pracaya, 2011).

Fertilization aims to add nutrients needed by plants because the nutrients contained in the soil are not always sufficient to stimulate plant growth optimally. So far, farmers tend to use inorganic fertilizers continuously. The relatively high and continuous use of inorganic fertilizers can have a negative impact on the soil environment, thereby reducing the productivity of agricultural land. This condition gave rise to the idea of re-using organic matter as a source of organic fertilizer. The use of organic fertilizers can maintain soil balance and increase land productivity and reduce the environmental impact of the soil (Salikin, 2003).

The continued use of inorganic fertilizers on plant development and production will impact the land, causing the soil to become deficient in NPK nutrients. If fertilizer is applied incorrectly, both in terms of type and dose, as well as in terms of timing and procedure, plants' growth will be disrupted and will not produce as expected (Rukmana, 2005).

Another alternative is to use the liquid organic fertilizer, where liquid organic fertilizer is the result of industrial waste and household waste and vegetable waste. It is such waste that can be utilized and obtained very easily without spending so much capital, just as we spend money to be able to buy inorganic fertilizers circulating in the markets. The advantages of this liquid organic fertilizer are that it can overcome nutrient deficiencies quickly, has no problem in nutrient leaching, and is also able to provide nutrients quickly. When compared to inorganic fertilizers, liquid organic fertilizers generally do not damage the soil and plants even though they are used as often as possible. In addition, this liquid organic fertilizer also has advantages compared to other organic fertilizers, because this liquid organic fertilizer can be directly absorbed by the roots when watering plants (Hadisuwito, 2012).

In general, the function of liquid organic fertilizer is to improve soil fertility, physical and chemical properties, biological properties, and ensure the safety of its use. Given the important role of organic matter for the soil, it is very important to return organic matter to the soil. Liquid organic fertilizer is a fertilizer made from dumped waste without a fermentation process which can later be used as fertilizer to add nutrients to plants. The result of this liquid organic fertilizer is in the form of a liquid that can be applied to plants. The use of liquid organic fertilizer is generally dissolved in water according to the needs of each plant, then sprinkled or sprayed on the soil or plants. Liquid organic fertilizer is usually applied through the leaves which in liquid organic fertilizer contains essential macro and micronutrients (N, P, K, S, Ca, Mg, B, Mo, Cu, Fe, Mn, and other organic materials). Compared with manure (Bachelor Parman, 2007).

Rice rinse water is a waste product of everyday life that is frequently discarded. Rice rinse water, on the other hand, includes carbs, nutrients, vitamins, and other minerals. Despite the fact that the chemical components found in rice rinse water waste are quite varied. Carbohydrates, nitrogen, phosphorus, potassium, magnesium, sulfur, iron, and Vitamin B1 are all present (G.M et al, 2012). The rice rinse water's whole composition is designed to aid plant development. Because the carbohydrates in the rice rinse water act as an intermediate for the synthesis of auxin and gibberellin hormones, it may be argued that the rice rinse water acts as a growth regulator. Utilization of rice rinse water waste in several industries and increasing agricultural yields have different levels of rice rinse water according to the rice variety. Furthermore, the provision of rice rinse water also increases the growth and dry weight of the water henna plant (Ratnadi et al, 2014). And it can be concluded that in this study it is possible to use rice rinse water waste as liquid organic fertilizer, which aims to determine the growth response and production of lettuce plants (Handiyanto et al, 2013).

1.2 Research Questions

The followings are the research questions in this study:

a. How to utilize rice rinse water waste as liquid organic fertilizer on the growth and productivity of lettuce.

b. How to give an effective dose of rice rinse water poc to increase lettuce production.

1.3 Research Objectives

The followings are the research objectives in this study:

a. To determine the effect of applying Poc rice rinse water on lettuce plant growth.

b. To find out which dose is more effective in giving Poc of rice rinse water to increase the production of lettuce.

1.4 Research Benefits

The followings are the research benefits of this study:

a. To be further developed in terms of the lettuce cultivation by using Poc rice rinse water.

b. Provide information about Poc rice rinse water as a substitute for Inorganic Fertilizers,

c. As one of the requirements to obtain a bachelor's degree at the Faculty of Agriculture, Medan Area University.

d. Provide information to lettuce farmers to manage their land by utilizing rice rinse water waste as liquid organic fertilizer, or to utilize other local waste.

1.5 Hypothesis

a. A response to the growth of lettuce plants with a dose of rice rinse water Poc presents.

b. A response to the increase in production weight in lettuce plants presents.

II. LITERATURE REVIEW

2.1 Classification of Lettuce Plants (Lactuva Sativa L.)

Lettuce is a seasonal vegetable. This plant is native to temperate areas of West Asia and America. Lettuce is now grown in a variety of places, including those with hot climates. Lettuce was first cultivated in Indonesia in several places. However, it has not progressed at the same rate as other vegetables. Only regions that become vegetable production centers grow a lot of lettuce. (Prasetio, 2013).

According to (Rukmana, 2005). Lettuce is a seasonal plant that contains a lot of water (herbaceous). The position of lettuce plants in plant systematics is as follows: Kingdom: Plantae, Division: Spermatophyta, Subdivision: Angiospermae, Class: Dicotyledonae, Order: Asterales, Family: Asteraceae (Compositae), Genus: Lactuca sativa. L.

2.2 Lettuce Plant Morphology

Lettuce (Lactuca sativa L.) is a type of leaf vegetable and is classified as an annual (short-lived) plant. Plants grow short with a height ranging from 20–40 cm or more. Morphologically, the important organs found in plants are as follows:

a. Leaf

Lettuce leaves come in various shapes, sizes, and colors, depending on the variety. The type of curly lettuce, the leaves are elliptical, large, the edges of the leaves are jagged (curly), and the leaves are dark green, bright green, and red. Lettuce leaves have broad petioles and pinnate leaves. The petiole is strong and smooth. The leaves are soft and crunchy when eaten and have a slightly sweet taste. Lettuce leaves are generally 20–25 cm long and 15 cm wide or more. Lettuce also contains vitamins contained in lettuce leaves including Vitamin A, Vitamin B, and Vitamin C which are very beneficial for health (Pracaya, 2011).

b. Root

Lettuce plants have a tap and fibrous root system. Fibrous roots attached to the stem, growing spread, in all directions at a depth of 20-50 cm or more. Its taproot grows straight to the center of the earth. Lettuce plant roots can grow and develop well on fertile, loose soil, easily absorbs water, and the depth of the soil (soil solum) is quite deep (Kuderi, 2011).

c. Stem

Lettuce plants have true stems. In curly lettuce plants (leaf lettuce and stem lettuce) the stems are longer and visible. Stems are sturdy, sturdy, and strong with diameters ranging from 5.6-7 cm (stem lettuce), 2-3 cm (leaf lettuce), and 2-3 cm (head lettuce) (Pracaya, 2011).

d. Fruit

Lettuce is pod shaped. Inside the pod contains very small seeds (Pracaya, 2011).

e. Seed

Lettuce seeds are oval, hairy, slightly hard, brown, dark, and very small, 4 mm long and 1 mm wide. Lettuce seeds are seeds that are closed and in two pieces, can be used for plant propagation (breeding) (Kuderi, 2011).

f. Flower

Lettuce plant flowers are yellow, growing thickly in a series. Flowers have long flower stalks until the data reaches 80 cm or more. Lettuce plants grown in temperate (subtropical) climates are easy or fast to bear fruit (Kuderi, 2011).

2.3 Conditions for Growing Lettuce Plants

2.3.1 Climate

Lettuce plants requires cold and cool climate environment to grow, i.e., at temperatures between 15-20 °C. In areas where the air temperature is high (hot), lettuce plants of the cabbage type (crop) will fail to form sprouts. However, with the advancement of technology in the field of seeding, many varieties of lettuce now have been cultivated to be heat-resistant. Another climatic requirement is the rainfall factor. Lettuce plants are not or less resistant to heavy rains. Therefore, planting lettuce is recommended at the end of the rainy season (Pracaya, 2011).

Moderate temperatures are ideal to produce high-quality lettuce, the optimum temperature for the day is 200C and at night is 100C. Temperatures higher than 30^0C tends to slow down growth. Generally, high light intensity and longer duration of daylight increase the growth rate and accelerate the development of leaf area so that the leaves become wider, which results in faster head formation. (Rubatzky and Yamaguchi, 1997). Lettuce plants need moderate light, because excessive rainfall can cause damage to the leaves. Therefore, planting lettuce is recommended at the end of the rainy season. Subsequently, to meet the needs of its growth, lettuce requires as much as 400 mm of water (Haryanto et al, 2003).

2.3.2 Soil

Basically, lettuce plants can be grown in rice fields or dry fields. The ideal type of soil for lettuce is sandy loam such as Alluvial, Andosol and Latosol soils. The condition is that the soil must be fertile, loose and contains lots of organic matter, not easy to get muddy. A suitable soil acidity for plant growth is pH between 5.0 - 6.5 °C (Sastradihardja, 2011).

2.3.3 Place Elevation

In Indonesia lettuce can be grown in the lowlands to the highlands/mountains, the most important thing is to pay attention to the selection of varieties that are suitable for the local environment. For low to medium land, it is better to choose lettuce varieties that are "heat tolerant" (resistant to heat) such as Kaiser, Ballade and Gemini varieties. In some vegetable producing areas that have started to develop lettuce a lot, this plant grows and produces at an altitude between 600 - 1,200 m above sea level, such as in Pacet and Cipanas (Cianjur) and

Lembang (Bandung). The growing conditions are identical for cabbage and lettuce plants (Sastradihardja, 2011).

2.4 Types of Lettuce Plant Varieties

According to (Ashari, 1995), lettuce plants consist of several types, including:

1). Egg lettuce or kropsla var. capitata. This type is the most widely cultivated, the characteristics of this plant form a very dense crop.

2). Lettuce tuber var. longifolia leaves are rosette, cylindrical, oval, or ovoid, grow upright and have a rough texture. This type generally folds heart-shaped leaves.

3). Leaf lettuce or curly lettuce var. crispy. This variety does not form a crop, the leaf texture is the same as var. capitata, but differ in the ability to form a crop and generally has curly leaves.

4). Asparagus lettuce var. Bailey's asparagine, usually consumed by leaf stalks, rough leaf texture, less suitable for salads, this type is widely grown in China.

2.5 Liquid Organic Fertilizer fomr Rice Rinse Water

Andrianto (2007) stated that water used to rinse rice can stimulate the growth of roots of Adenium plants. This is because rice rinse water contains vitamin B1 which functions to stimulate growth. One of the cellulose contents is phosphorus which is a macro nutrient that is needed by plants. The application of giving rice rinse water waste is given by watering the plants.

In processing it into rice, the rice undergoes a rinsing process before being cooked. The rice rinse water is white, it shows that a lot of starch found in rice is being eroded, indirectly protein and vitamin B1 are also found in wasted rice rinse water (Barus, 2005).

According to Mohammad and Adesca (2011), it is enough to give rice rinse water waste to plants by pouring it on plants or to the planting media, for example soil and rice rinse water which contains a lot of vitamin B1 which comes from the rice husk which is washed away in the washing process, where vitamin B1 is an element of hormones and hormones are needed in the process of plant growth so that vitamin B1 is useful in mobilizing carbohydrates so that it is good for new replanting plants. Rice rinse water waste contains high levels of P and N nutrients needed by plants. Currently, research has begun to utilize rice rinse water waste in horticultural plants, namely ornamental plants, orchids, and vegetables, such as spinach, and land kale. Therefore, it has a great potential to be developed.

2.5.1 Content of Rice Rinse Water Waste

According to (Diana Rizani Yuwana, 2015), the benefits of fermenting rice rinse water waste contain important mineral elements, i.e., having a total content of 2.72% N, 1.10% P, 0.50% K, and 92%. And the macro and micronutrient content of Poc of rice rinse water waste, namely: Nitrogen (N): 70.55 ppm, Phosphorus (P): 60.65 ppm, Potassium (K): 91.11 ppm, Iron (Fe): 09

.95 ppm, Boron (B): 06.44 ppm, Vitamin B: 205.44 ppm, Vitamin K: 11.12 ppm, Protein: 185.09 ppm.

Rice rinse water contains more than other organic fertilizers, having growth stimulants that can be used as growth regulators, and the dominating nutrient content in the rice rinse water solution is phosphorus, magnesium, and calcium. Phosphorus is a constituent of amino acids, coenzymes, active in cell division and stimulates seed growth. Magnesium is an essential constituent of chlorophyll and acts as a cofactor in most enzymes that activate the phosphorylation process, as a bridge between the pyrophosphate structure of the enzyme molecule and stabilizes the particles in the configuration for protein synthesis. Calcium is a constituent of cell walls, plays a role in maintaining cell integrity and membrane permeability (Utami, 2003).

III. RESEARCH METHOD

3.1 Place and Time of Research

The research was conducted at the Experimental Garden of the Faculty of Agriculture, University of Medan Area, which is located at Jalan Pool No.1 Medan Estate, Percut Sei Tuan District with a height of 12-meters above sea level (asl), flat topography and alluvial soil type. The research was conducted from May to June 2017.

3.2 Materials and Tools

The materials used are green lettuce seeds (curly) Grand Rapis variety, Rice rinse water waste, EM4 200 ml, and 1 /4 ounce brown sugar, and ± 3 liters of water. The tools used are knife, meter, watering pot, 10-liter plastic drum, knife, pipe (hose), 5 liter drier, hoe, measuring cup, Hand sprayer, plot label board, scale, small rake and stationery and other necessary tools.

3.3 Research Method

The study was conducted using a non-factorial randomized block design (RAK) consisting of 5 levels of treatment. The treatment was the application of POC Liquid Organic Fertilizer (Waste Rice rinse water) as follows:

B_0 = No POC of rice rinse water (control)

B_1 = 25 ml POC of rice rinse water/1 liter of water/Plot.

B_2 = 50 ml POC of rice rinse water/1 liter of water/Plot.

B_3 = 75 ml POC of rice rinse water/1 liter of water/Plot.

B_4 = 100 ml POC of rice rinse water/1 liter of water/Plot.

The application of liquid organic fertilizer according to the above dosage is for each plot.

This study was repeated 5 times with the following conditions:

$(t-1)\ (r-1) \geq 15$

$(5-1)\ (r-1) \geq 15$

$4(r-1) \geq 15$

$4r-4 \geq 15$

$4r \geq 15 + 4$

$4r \geq 19$

$r \geq 19/4$

$r \geq 4,75$

r = 5 Repetition

Research Unit:

- Number of repetitions = 5 repetitions
- Number of Plots = 25 plots
- Plot Size = 1 x 1 m
- Planting Distance = 20 x 20 cm
- Distance Between Plots = 30 cm
- Distance Between Tests = 50 cm
- Sample Plants / Plot = 4 Crops
- Number of Plants Per plot = 16 Plants.
- Total number of Plants = 400 Plants

3.4 Research Data Analysis Method

The simple linear model used in the Non-Factorial Randomized Block Design (RAK) is as follows:

$Yij = \pi + \alpha i + \beta j + \Sigma ij$

Where:

Yij = The results of observations in the (i) group that were given the (j) POC of Rice rinse water.

π = General mean.

αi = Effect of Dosage of Rice rinse water POC at level i.

βj = The influence of the j level group.

Σij = Experimental error of the ith rice rinse water treatment and j repetitions.

To determine the effect of the treatment, the research data will be analyzed using a variance fingerprint and if the results of the analysis show a real effect, a further test is carried out by Ducan (Gomez, 2005).

3.5 Research Implementation

3.5.1 Making Liquid Organic Fertilizer from Rice Rinse Water Waste

The steps for making liquid organic fertilizer are as follows: Collect existing materials to make liquid organic fertilizer. The first step is to put the rice rinse water waste into a container or plastic drum that has been prepared with a size of 10 liters, as a basic ingredient to enter all the ingredients in one container. Then mixed with rice rinse water waste in a drum that has been added to ± 3 liters of water, then added 200 ml of EM4 (Microorganism Effectiveness) then mixed with 1/4 ounce of brown sugar that has been mashed or sliced, with a ratio of 2:1:1: 1. Then it is poured into a plastic drum and stirred using wood so that it is evenly distributed. Then given a hole in the drum cap by giving a hose to the drum cap. After that, close the plastic drum tightly and place it in a shady place. The next process is left for 7-14 days equivalent to 2 weeks so that the material can decompose properly, and for 2 weeks the drum cover is opened every 3 days for approximately 30 minutes. The goal is that the Oxygen (O^2) or gas and Carbon dioxide (CO^2) contained in the drum can be wasted into the air and do this for up to 2 weeks and can be applied to plants. The criteria for liquid organic fertilizer that has been fermented can be seen from the color, aroma, and texture.

3.5.2 Land Management

Land preparation is carried out for approximately 2 weeks. The land to be used must be measured using a meter so that it can determine the need for the research plant plot area as well as measure the plant plots and measure the beds for sowing lettuce seeds, then the land needs to be cleaned of weeds and other wild plants. After cleaning from weeds, loosening the soil is carried out on all plots so that the soil becomes loose by hoeing to a depth of 20 cm-30 cm, so that the lettuce plants can grow well. Make a large plot or bed. 100 x 100 cm, and the plot height is 25 cm. between plots of 30 cm, 5 plots in 1 replication, there were 5 replications, so the total number of plots was 25 plots. The total land used is width: 6.5 m and length: 7.3 m.

3.5.3 Seeding

Seed nursery is carried out using the planting medium used, namely loose soil that has been processed. The seeds used are green lettuce varieties (grand rapids) commonly called green lettuce curls. Lettuce seeds are soaked in warm water with a temperature of 500C for approximately 1 hour and the seeds are separated from floating seeds, then spread sufficiently on a small bed measuring 1 x 1.5 m and a shade height of 1 m and a width of 1.5 m. then the seeds are sown with a mixture of sand so that they can be separated from other seeds, then covered with reeds for 3 days the aim is to maintain soil moisture and avoid the pressure of raindrops that fall and let the seed dormancy process germinate faster . Watering is done every morning and evening, or if the weather conditions are rainy then watering is not done, the seeds are sown for 14 days.

3.5.4 Cultivation

The seeds are transferred after having three leaves from the nursery to the prepared beds. The spacing used is 20 x 20 cm and planting is done in the afternoon.

3.5.5 Watering

Seed watering is done in the morning once a day, ifthe seeds reach more than two weeks old then it is done twice in one day regularly,carried out for a week with an interval of watering once a day in the morning and evening depending on weather conditions. If it doesn't rain, watering is done using the same volume of watering pot on each plant.

3.5.6 Weeding

Weeding is done when the plants are 2 weeks-old after planting, this is because the lettuce roots are shallow, so they are less able to compete with other plants in absorbing nutrients from the soil. Weeding also serves to suppress weed growth in the plot area that can interfere with plants, the time interval is once a week manually by pulling weeds.

3.5.7 Plant Embroidery or Dead Plants Replacement

Crop embroidery is done by replacing dead plants with reserved plants that have been prepared. Insertion is done 1 week after planting. This is conducted to see the percentage oflife-span expectancy on plants.

3.5.8 Fertilization

The fertilizer used is liquid organic fertilizer from rice rinse water, the method of application is by spraying the surface of the lettuce leaves using a hand spray, so that the water drops on the leaves can be absorbed by translocating them to all parts of the plant such as stems and roots. The application of liquid organic fertilizer from rice rinse water to lettuce plants when entering 3 WAP from seeding was equivalent to 1 WAP in the plot. Spraying is done at intervals of 1 week in 4 times of application. Poc is sprayed according to the dose of the plot/plant until the plant leaves are wet. Each plot has its own dose for the whole plant. This is done regularly in the afternoon until harvest time.

3.5.9 Pest and Disease Control

Pest control is usually done manually, such as removing caterpillars found on lettuce plants and burning them. In addition, in terms of disease control on lettuce plants, biological control is carried out in the symptoms of SR (Mild Attack), if it enters the symptom phase of SB (Heavy Attack) then it must act by using vegetable fungicides. By using soursop leaf extract. This is performed at intervals of 1 week.

3.5.10 Harvest

Harvesting is done after the plants are 42 days after planting (DAT) or have shown the harvest criteria that are not counted from the seeding process. Lettuce planting on the plot is calculated from 1 WAP. As the lower leaves begin to droop almost on the ground, the lower stems are slightly hardened.In this study, the harvesting technique was carried out by pulling out all parts of the plant. The characteristics of lettuce that can be harvested can be seen from plant physiology such as changes in color, plant size, number of leaves and plant age.

3.6 Observed Parameters

3.6.1 Plant Height (cm)

Plant height measurements were carried out starting at 1 WAP. Plant height was measured from the base of the stem to the tip of the growing point of the sample plant. With an interval of 1 week, until the harvest period.

3.6.2 Number of Leaves (pieces)

The number of leaves was counted from the young leaves that had fully opened to the oldest leaves; observations were made when the plants were 1 WAP. Up to the vegetative period with an interval of once a week under observation.

3.6.3 Wet Weight / Plant Plot (g)

The wet weight of all plants in 1 plot was weighed using a scale, in order to see the difference in the level of production in each plot that had been given treatment for each plot.

3.6.4 Crown Wet Weight (g)

The wet weight of the crown was weighed from the base of the stem to the tip of the leaf after harvest and weighed using a scale, observations were made on plant samples.

3.6.5 Wet Weight of Roots (g)

Wet weight of roots is the weight of plant roots that are cut and weighed using a scale, observations are made on sample plants.

3.6.6 Net Weight of Canopy / Plant Plot (g)

The net weight of the crown was calculated from the whole plant/plot that was suitable for sale and weighed using a scale to determine the net weight results in one plot.

3.6.7 Root Dry Weight (g)

Root dry weight is the weight of plant roots that have been cut using a knife and weighed with a scale after being baked at 100^0C.

V. CONCLUSION AND SUGGESTIONS

5.1. Conclusion

The application of liquid organic fertilizer with rice rinse water increased the growth (plant height and number of leaves) and production (wet weight per plot, wet weight of crown, net weight of crown and dry weight of roots) of green lettuce (*Lactuca sativa L.*) with the best treatment being B4 (100 ml/liter of water), which differed significantly with a plot size of 100 X 100 cm, and the best treatment with a concentration of 10% equivalent to 100 ml.

5.2 Suggestions

Horticultural farmers, especially the cultivation of green lettuce (*Lactuca sativa L.*) can use B4 treatment (100 ml/liter of water) in increasing lettuce production.

IV. DISCUSSION AND RESULTS

4.1. Plant Height (cm)

Data on plant height observations 1 to 4 weeks after planting (WAP) can be seen in Appendix 5, 7, 9 and 11, respectively, while the results of variance can be seen in Appendix 6, 8, 10, and 12. Results of plant height Duncan test on the provision of rice rinse water poc can be seen in Table 1.

Table 1. High Duncan yield of green lettuce (Lactuca sativa L) at the age of 1-4 WAP with various doses of liquid organic fertilizer from rice rinse water.

Treatment	Plant Height (cm)			
	1 WAP	2 WAP	3 WAP	4 WAP
B0	3,93 tn	5,78 c C	6,74 d C	8,54 d D
B1	3,75 tn	5,48 c C	8,76 c C	10,28 cd CD
B2	3,77 tn	6,08 c C	9,38 c BC	12,30 c C
B3	5,56 tn	9,00 b B	11,86 b B	16,68 b B
B4	5,90 tn	12,17 a A	16,36 a A	20,96 a A

Description: Numbers followed by the same letter in the same column show no significant difference at the 95% (lowercase) and 99% (capital) levels.

From Table 1 the growth of plant height at the age of 1 WAP showed no significant results in the treatment of giving rice rinse water Poc. This is because the provision of Poc rice rinse water cannot be utilized by lettuce plants because of the nature of organic fertilizers that are slowly available to plants, but in the 2nd week after planting until the 4th week after planting it shows that all treatments given affect the height of green lettuce plant (Lactuca sativa L), where the best treatment was found in B4 (100 ml/ Liter of water), significantly different from treatment B3 and very significantly different from treatment B2, B1 and B0 with both 95% and 99% confidence levels. The treatment of Poc of rice rinse water at observations 2 to 4 WAP was due to the nutrients contained in the Poc of rice rinse water was available and could be absorbed by plants. This is relevant to (Waridah, 2014), that says the provision of rice rinse water has a significant effect on the height of the pkchoy plant. It is also supported by the results of Bahar's research (2016), which states that rice rinse water waste can meet plant nutrient needs so that it can support plant metabolic processes and have a good influence on the growth of kale plant height, which can be seen in the response curve contained in Figure 1.

Height of Plant (cm)

Rice rinse water Treatment

Figure 1. Green Lettuce Plant Height Response Curve to various doses of Rice Wash Water POC.

From Figure 1 it can be seen that the response curve of POC administration of rice rinse water is positive linear and has the equation y = 2.23x + 3.918 and R2 = 0.9151, this means that 91.51%

of green lettuce plant height is caused by the effect of giving water poc. rice washing. The high response to the provision of rice rinse water poc where each treatment the higher the dose of administration will have a very real effect on plant height. The results of this study are in accordance with those stated by Waridah, et al (2014) in Bahar (2016), which states that the provision of Poc of rice rinse water has a significant effect on the height of water spinach plants. Zakaria (2013), also added that the higher the amount of 100 ml of rice rinse water, the higher the tomato plant height.

One of the nutrients that is needed a lot in the growth of green lettuce plant height is nitrogen. Where according to Lingga and Marsono (2006), which states that nitrogen is needed for the formation and growth of vegetative parts such as leaves, stems, and roots. Patti, et al (2013), also added that the function of nitrogen in plants is 1. Increases vegetative partumantion of plants, 2. Increases foliage plants such as vegetables and livestock grass, 3. Increases protein levels in the soil, 4. Functions for synthesis, amino acids, and protein in plants.

Furthermore, Waridah, et al (2014), stated that rice rinse water contains carbohydrates, nutrients, vitamins, and mineral substances, where all the content in rice rinse water generally functions to help plant growth. Waridah, et al (2014), also added that the carbohydrates present in the water content of this rice wash become an intermediary for the formation of the auxin and gibberellins hormones. Both hormones are widely used in plant growth stimulants. Auxin is beneficial for stimulating shoot growth and the emergence of new shoots, while gibberellins are beneficial for root stimulation so that roots will absorb more nutrients in the soil and will affect plant height growth (Leandro, 2009 in Waridah, et al 2014).

4.2. Number of Leaves (Strand)

Observation data on the number of leaves/plant samples aged 1 to 4 weeks after planting (WAP) can be seen in Appendix 13, 15, 17 and 19 respectively, while the results of the variance can be seen in Appendix 14, 16, 18, and 20. Table 2 shows the Duncan test findings for the number of leaves on the provision of rice rinse water.

Table 2. Duncan's results on the number of green lettuce leaves (Lactuca sativa L) at the age of 1-4 WAP with various doses of liquid organic fertilizer from rice rinse water.

Treatment	Plant Height (cm)			
	1 WAP	2 WAP	3 WAP	4 WAP
B0	3,10 tn	4,93 c C	6,28 c C	8,00 d D
B1	3,10 tn	6,05 b BC	7,90 b BC	9,45 cd CD
B2	3,20 tn	6,28 b B	8,77 b B	10,68 c C
B3	3,20 tn	8,75 a A	11,85 a A	16,15 b B
B4	3,20 tn	9,35 a A	13,30 a A	19,38 a A

Description: Numbers followed by the same letter in the same column show no significant difference at 95% (lowercase) and 99% (uppercase) levels.

Table 2 shows that the treatment of liquid organic fertilizer in rice rinse water had no effect at the age of 1 WAP. This is because the nutrients available in the rice rinse water have not been able to be available to lettuce plants, the nutrients provided by the rice rinse water are not available due to the slow reaction given to the plants. This finding is in accordance with the results of research by Majid, et al (2011), which states that organic fertilizers have main characteristics such as response to certain target plants, indirect nutrient supply, durability to the soil and improve soil physical, chemical and biological properties and do not have a negative impact to the environment. At the age of 2 to 4 WAP showed that treatment B4 (100 ml/liter of water) was the best treatment which was not significantly different from treatment B3 and significantly different from treatment B2 and B1 and very significantly different from treatment B0. If it is seen that the higher the Poc of rice rinse water on the number of green lettuce leaves, the more effective it will be in increasing the vegetative growth of plants. This research is in line with the research disclosed by Waridah, et al (2014), states that the higher the application of liquid organic fertilizer, rice rinse water where the best treatment was 100 ml/liter of water for the growth of the number of leaves of the pakchoy plant. Furthermore, Parlimbungan (2006) in Waridah, et al (2014), that the availability of nutrients in sufficient and balanced quantities for plant growth, causes the process of cell division, cell enlargement and elongation to take place quickly. This statement can be seen in the curve in Figure 2.

Number of Leaves

POC Treatment for Rice rinse water

Figure 2. Response curve of Green Lettuce leaf number (strands) to various doses of rice rinse water POC.

From Figure 2 it can be seen that the response curve for POC administration of rice rinse water is positive, which means that the higher the concentration of POC in rice rinse water will increase the number of lettuce leaves and has the equation $y = 1.7982x + 4.2254$ and $R2 = 0.9701$, This means that 97.01% of the number of green lettuce leaves is caused by the effect of giving the rice rinse water. The high response to the provision of rice rinse water poc where each treatment the higher the dose of administration will have a very real effect on the number of green lettuce leaves. The increase in the number of leaves is related to the function of nitrogen, phosphorus, and potassium contained in rice rinse water.

In accordance with the results of research Hanafiah (2013), states that physiologically potassium functions in carbohydrate metabolism such as rice formation and sucrose translocation as well as accelerated growth and development of meristem tissue (shoots and shoots). The addition of potassium elements in rice rinse water will accelerate carbohydrate metabolism and the process of cell division, so that the plant growth process takes place more quickly.

The increase in the number of leaves of green lettuce also cannot be separated from the role of phosphorus. According to Hardjowigeno (2003) in Kurniatusolihat (2009), phosphorus serves to increase root length, fineness, and density. Roy et al, (2006) in Kurniatusolihat (2009), stated that the availability of sufficient phosphorus in the soil will support the formation and elongation of roots, so that the number of nutrients that will be absorbed by the roots is higher, this condition causes plant growth to be faster.

4.3. Wet Weight of Plants / Plot

The observation data on the wet weight of each plant/plant plot can be seen in Appendix 21, while the results of the variance can be seen in Appendix 22. The results of the Duncan test of wet weight of plants/plant plots on the provision of rice rinse water can be seen in Table 3.

Table 3. Results of Duncan Wet Weight Plants/Plots of Green Lettuce Plants (Lactuca sativa L) With Various Doses of Liquid Organic Fertilizer Rice rinse water

Treatment	Wet Weight of Plants/Plots of Plants	
	Wet Weight of Plants/ Plot (gr)	F0,5
B0	971,00	c
B1	1216,00	b
B2	1279,00	b
B3	1384,80	a
B4	1524,80	a

Description: Numbers followed by the same letter in the same column show no significant difference at 95% (lowercase) and 99% (uppercase) levels.

Table 3 explains that the best treatment was found in treatment B4 (100ml/liter of water) which was not significantly different from treatment B3, significantly different from treatment B3 and B2 and significantly different from treatment B0 with a 95% confidence level. It can be seen from Table 3 that the higher the dose of rice rinse water, the higher the wet weight per plot. The results of this study are in accordance with what was stated by Bahar (2016), from the results of his research that the higher the provision of rice rinse water will further increase the production yield of the wet weight per plot of land kangkong plants. Elfarisna, et al (2015), also added that the higher the amount of rice rinse water, the higher the yield from tuberose plants, it can be seen the level of influence of the rice rinse water poc on the wet weight per plot on the curve shown in Figure 3.

Wet Weight Perplot (gr)

Rice Wash Water POC Treatment

Figure 3. Response Curves of Plant Wet Weight/Green Lettuce Plots to Administration of Various POC doses of Rice Wash Water.

From Figure 3 the response curve for POC administration of rice rinse water is positive linear which explains that the higher concentration is able to increase the wet weight/plot and has the equation y = 127.64x + 892.2 and R2 = 0.9563, p. This indicates that 95.63% of the wet weight of the plant/plot of green lettuce was caused by the effect of giving rice rinse water poc. There is a correlation between the number of leaves and the wet weight/plot parameter. Darwin(2012), stated that in leaf vegetable commodities, the number of leaves will affect the fresh weight of the crown and will indicate the wet weight per lot, the greater number of leaves will show the fresh weight per plot. Vegetable plants also affect the number and width of leaves so that photosynthate results can be formed in large quantities and flowed throughout the plant. This is in accordance with the statement of Hadi, et al (2015), which states that the amount of leaf area will result in higher photosynthetic results and result in higher production yields.

According to Citra et al., (2011), which states that rice rinse water waste has nutrients N 0.015%, P 16.306%, K 2.944%, Ca 14.252% and Mg 0.027%. Fatimah (2008) in Kalsum et al, (2011) also added that rice rinse water still contains many nutrients needed by plants such as vitamin B1 (thiamine), B12, elements of Nitrogen, Phosphorus, Potassium and Carbon.

Following the results of research by Marsono (2002) in Ginting (2017), it is stated that the element N functions to stimulate plant growth and plays a role in the formation of chlorophyll, fat, protein, and other compounds, so that it will affect plant production. In addition to the N element, the higher P content compared to other nutrients found in the rice rinse water pot is important because green lettuce plants will be responsive to P, because P plays an important role in energy transfer in plant cells and can also increase the efficiency of a plant production.

In addition to the content contained in the rice rinse water poc which affects the wet weight of the green lettuce crown, fertilization is also very influential on plant growth, especially if the plant media is classified as poor in nutrients, improper fertilization, both in terms of type, amount, method of administration, and the time of administration can affect the process of plant growth and development (Endah, 2001) in Waridah et al, (2014). Warsino and Kres (2010) in Waridah et al, (2014), also adds that in addition to the right time of fertilizer application, another factor that affects plant growth is the right dose. Plants must have adequate amounts of nutrients, but not excessive, this will result in plants experiencing plasmolysis (cell wall decay) so that plants can die (Waridah et al, 2014).

4.4. Head (Crown) Wet Weight (g)

The observation data on the wet weight of the crown/plant sample for each can be seen in Appendix 23 while the results of the variance can be seen in Appendix 24. The results of the Duncan test on the wet weight of the crown/plant sample on the provision of rice rinse water can be seen in Table 4.

Table 4. Results of Duncan Wet Weight of Crown/Sample of Green Lettuce (Lactuca sativa L) With Various Doses of Liquid Organic Fertilizer Water

Treatment	Wet Weight of Plants/Plots of Plants		
	Wet Weight of Plants/Plots (gr)	F0,5	F0,1
B0	372,00	e	E
B1	534,00	d	D
B2	634,00	c	C
B3	772,80	b	B
B4	1128,00	a	A

Note: Numbers followed by the same letter in the same column show no significant difference at 95% (lowercase) and 99% (uppercase) levels.

Table 4 shows that the best treatment is in treatment B4 (100ml/liter of water) which is very significantly different from other treatments, both at 95% and 99% confidence levels. This is because the rice rinse water poc's content, if provided in a greater dose, will boost the available nutrients for green lettuce plants, resulting in increased production weight. This conclusion is in line with the results of Bahar's (2016) study, which found that providing rice rinse water to land kangkung plants can improve crown output. According to Kalsum et al., (2011), providing rice rinse water increased the growth and wet weight of harvested white oyster mushrooms.It can be concluded that the higher the poc of rice rinse water, the higher the effect on the wet weight of the canopy/plant sample and can be seen in the curve in Figure 4.

Canopy Wet Weight/Plant Sample (gr)

Rice Wash Water POC Treatment

Figure 4. Wet weight response curve of the canopy/green lettuce plant sample to the administration of various doses of POC rice rinse water.

From Figure 4, it can be seen that the response curve for giving rice rinse water POC is positive linear which means that the higher the POC of rice rinse water can increase the wet weight of the canopy/plant sample and has the equation y = 175x + 163 and R2 = 0.9361, p. This stated that 93.61% of the wet weight of the canopy/planting sample of green lettuce was caused by the effect of giving rice rinse water poc. There is a correlation between the number of leaves and the wet weight of the canopy, Darwin (2012), stated that for leaf vegetables, the number of leaves will affect the fresh weight of the crown, the more the number of leaves will show the fresh weight of the crown. Vegetable plants also have a large number and wide leaf area so that photosynthetic results can be formed in large quantities and flowed throughout the plant. This is in accordance with the statement of Hadi et al, (2015), which states that the number of leaf areas will result in higher photosynthetic results and result in higher production yields.

4.5. Root Wet Weight (g)

The observation data on the wet weight of roots/plant samples can be seen in Appendix 25, while the results of the variance can be seen in Appendix 26. The results of the Duncan test on the wet weight of roots/plant samples for the administration of rice rinse water can be seen in Table 5.

Table 5. Results of Duncan Root Wet Weight/Sample of Green Lettuce (Lactuca sativa L) With Various Doses of Liquid Organic Fertilizer Rice rinse water

Treatment	Wet Weight of Plants/Plots of Plants		
	Wet Weight of Plants/Plots (gr)	F0,5	F0,1
B0	3,39	tn	tn
B1	3,41	tn	tn
B2	3,75	tn	tn
B3	3,91	tn	tn
B4	4,74	tn	tn

Description: Numbers followed by the same letter in the same column show no significant difference at 95% (lowercase) and 99% (uppercase) levels.

Table 5 shows that the treatment of giving rice rinse water poc did not significantly affect the wet weight of the roots of the sample plants. This is because the need for nutrients varies with the level of growth. Moerhasrianto (2011), states that plant needs for nutrients vary according to their growth rate and plant type. Likewise, the wet weight of the roots of the sample plants basically depends on the cleavage activity that occurs in all parts of the root. Table 5 shows that the higher the dose of rice rinse water poc, the higher the wet weight of the roots and can also be seen in the curve in Figure 5.

Root Wet Weight/Plant Sample (gr)

Rice Wash Water POC Treatment

Figure 5. Wet Weight Response Curve of Roots/Green Lettuce Plant Samples against various doses of POC Rice rinse water.

From Figure 5, the response curve of POC administration of rice rinse water is positive linear which means that the higher the POC of rice rinse water will increase the wet weight of roots / plant sample and has the equation $y = 0.3198x + 2.8818$ and R2 = 0 ,8471, it states that 93.61% of root wet weight/planting sample of green lettuce is caused by the effect of giving rice rinse water poc. This is because the higher the poc of rice rinse water will increase the root weight of the sample plants. According to G.M et al, (2012), which states that rice rinse water waste can increase the growth of lettuce roots at different types and levels of washing water.

Waridah et al, (2014), stated that one of the elements high in rice rinse water is carbohydrates. These carbohydrates function as growth regulators (carbohydrate content). The carbohydrates present in the rice rinse water mediate the formation of the auxin and gibberellins hormones (Waridah et al., 2014). Both hormones are widely used in artificial growth stimulants. Auxin is useful for stimulating shoot growth and the emergence of new shoots, while gibberellins are useful for root stimulation (Leandro, 2009 in Waridah et al, 2014).

Phosphorus, at 16.306 percent, is one of the most abundant nutrients in rice rinse water. As previously said, element P plays a significant role in energy transfer in plant cells and can also improve the efficiency of plant production. Plants require it for the development of cells in their root and shoot tissue as they grow. As a result, the moist weight of the roots/plant samples increases as the amount of rice rinse water increases. Because green lettuce or horti plants contain a lot of water components, there was no significant variation in the wet weight of roots/plant samples at the time of observation of all rice rinse water treatments. This is in line with Hamidah's (2015) claim that water makes for 80-90 percent of the content in fruits and vegetables. When the roots of lettuce plants are dried, the carbon element found in the roots is preserved. Masduqi et al, (2014) clarified this statement by explaining that drying process leaves phenol chemicals and carbon components.

4.6. Crown Net Weight (g) / Plant Sample

Observation data on the net weight of the crown/plant sample can be seen in Appendix 27, while the results of the variance can be seen in Appendix 28. The Duncan test results on the net weight of the crown/plant sample for the provision of rice rinse water can be seen in Table 6.

Table 6. Duncan's Result of Net Head Weight/Sample of Green Lettuce (Lactuca sativa L) With Various Doses of Liquid Organic Fertilizer with Rice rinse water.

Treatment	Wet Weight of Plants/Plots of Plants		
	Wet Weight of Plants/Plots	F0,5	F0,1
B0	236,00	e	E
B1	382,00	d	D
B2	502,00	c	C
B3	668,00	b	B
B4	906,00	a	A

Note: Numbers followed by the same letter in the same column show no significant difference at 95% (lowercase) and 99% (uppercase) levels.

Table 6 explains that the best treatment is in B4 (100ml/liter of water) which is very significantly different from other treatments, both at 95% and 99% confidence levels. This was due to the fact that the content of the rice rinse water pot could increase the net weight of the crown. If it is seen that there is a significant increase in distance from each treatment, where the higher the dose of rice rinse water, the higher the production of crown net weight. This opinion is in accordance with the research results of Waridah et al, (2014), that rice rinse water can be used as a liquid organic fertilizer in increasing the growth and production of vegetable crops, where the best results are found in 100% rice rinse water which can increase the production of pakchoy plants. In line with the results of research by Bukhari (2013), which states that the higher the amount of rice rinse water, the higher the eggplant production. Where we can see in the curve in Figure 6.

Head Net Weight (gr)/Plant Sample

Rice Wash Water POC Treatment

Figure 6. Response curve of the net weight of the canopy/sample of green lettuce to the administration of various doses of POC rice rinse water.

From Figure 6 the response curve for POC administration of rice rinse water is linear, which means that the application of rice rinse water can increase the net weight of the crown/plant sample and has the equation y = 162.6x + 51 and R2 = 0.9823, this states that 98.23% of the net weight of the canopy/planting sample of green lettuce was caused by the effect of giving rice rinse water poc. The increase in crown net weight was due to rice rinse water containing abundant nutrients including carbohydrates in the form of 85% starch, protein, cellulose, phosphorus and vitamins and could be an intermediary for the formation of auxin and gibberellins hormones (Nurhasanah, 2011 in Bukhari, 2013). The content of rice rinse water as organic matter affects soil properties (chemical, physical and biological soil) and plant growth and production (Darwin 2012). Among the nutrients with the highest concentration in rice rinse water is phosphorus. According to Ginting (2017), element P plays an important role in energy transfer in plant cells and can also increase the efficiency of the production of a plant. The same thing was also reported by Liferdi (2010), that phosphorus is needed by plants for cell formation in growing root and shoot tissues. So that the higher the POC of rice rinse water will increase the wet weight of the canopy/plant sample.

Bukhari (2013) also added that the phosphorus contained in organic matter will take a long time to be washed away even though the provider is absorbed by old plants. Hanafiah

(2013) in Bukhari (2013), also added that the nutrients contained in organic matter play a role in the chemical properties of the soil, namely providing some of the cation exchange capacity (CEC) which is important for soil fertility and as sources of hydrogen in the soil and can maintain soil fertility. nutrients as food for plants.

Furthermore Hadisuwito (2012) in Bukhari (2013), also added that the role of organic matter also affects the biological properties of the soil which is the main energy source for soil microorganisms so that the activities of microorganisms in the soil will increase, microbes in the soil will grow and yield. Decomposition helps in increasing the good particles so that the soil matures quickly and the nutrients in the soil can be available to plants, this will lead to the importance of adding organic matter in increasing plant growth and production in a sustainable manner.

4.7. Root Dry Weight (g)

Appendix 29 contains the observation data on the dry weight of the roots/plant sample, whereas Appendix 30 has the variance results. Table 7 shows the results of the Duncan test of root dry weight/plant sample after rice rinse water administration.Table 7. Results of Duncan Root Dry Weight/Sample of Green Lettuce (Lactuca sativa L) With Various Doses of Liquid Organic Fertilizer Rice rinse water.

Treatment	Wet Weight of Plants/Plots of Plants		
	Wet Weight of Plants/Plots (gr)	F0,5	F0,1
B0	0,20	c	C
B1	0,23	c	C
B2	0,37	b	B
B3	0,41	b	B
B4	0,59	a	A

Description: Numbers followed by the same letter in the same column show no significant difference at 95% (lowercase) and 99% (uppercase) levels.

Table 7 explains that the best treatment is in B4 (100ml/liter of water) which is very significantly different from the treatment, both 95% and 99% confidence levels and if it is seen that the higher the dose of rice rinse water, the higher the dry weight of the plant roots. This is because rice rinse water contains many essential nutrients needed by lettuce plants to increase plant growth and production. This study is in accordance with the results of Arifin's research (2014), that rice rinse water has a positive effect on the number and weight of roots, where the higher the provision of rice rinse water will give very real results on the growth and production of flower cabbage plants. Yulianingsih (2017), also reports the results of his research which states that giving rice rinse water will increasingly give good results on root weight. The results of the increase in root dry weight can be seen in the curve in Figure 7.

Root Dry Weight/Plant Sample

Rice Wash Water POC Treatment

Figure 7. Response Curve of Root Dry Weight/Sample of Green Lettuce Against Giving Various Doses

From Figure 7 it can be seen that the response curve for giving POC rice rinse water is linear, which means that the higher POC administration of rice rinse water can increase root dry weight/plant sample and has the equation y = 0.0966x + 51 and R2 = 0.939, this states that 93.90% root dry weight/planting sample of green lettuce was caused by the effect of giving rice rinse water poc. The increase in root dry weight is due to rice rinse water containing abundant nutrients including carbohydrates in the form of 85% starch, protein, cellulose, phosphorus and vitamins and can be an intermediary for the formation of the auxin and gibberellins hormones (Nurhasanah, 2011 in Bukhari, 2013). According to Citra et al., (2011), which states that rice rinse water waste has nutrients N 0.015%, P 16.306%, K 2.944%, Ca 14.252%, and Mg 0.027%. Fatimah (2008) in Kalsum et al, (2011) also added that rice rinse water still contains many nutrients such as vitamin B1 (thiamine), B12, elements of Nitrogen, Phosphorus, Potassium and Carbon. According to G.M et al, (2011), which states that under water washing rice from washing rice that wants to be cooked still contains many elements needed by plants, namely vitamin B1 and protein. According to Citra in GM et al (2011), which states that plants that experience stress due to bare root conditions or because of the transfer of plants to new media by giving vitamin B1 eat these plants can metabolize to adapt to the new media environment. This statement is confirmed by the research results of Andrianto (2007) in G.M et al., (2011), that rice rinse water or rice rinse water can stimulate the growth of adenium plant roots.

One of the elements also found in rice rinse water is carbon, which has been explained by Fatimah (2008) in Kalsum et al, (2011), that leri (rice) water still contains many nutrients such as vitamin B1 (thiamine), B12, trace elements Nitrogen, Phosphorus, Potassium and Carbon. One element that contains a lot of carbon is carbohydrates, where the carbohydrate element in rice rinse water is 300 mg/l. According to Hutagalung (2004), carbohydrates are elements that function as a source of energy for living things. Patti et al, (2013) also added that carbohydrates are one of the energy sources needed by plants to maintain and repair actively growing tissues, so that the high carbon element in rice rinse water can increase the growth and production of green lettuce plants.

PROOFREADING

1.	These	*:*	This
2.	Population necessitates	:	Number necessitates
3.	With a population growth rate	:	With a growth rate
4.	Namely at air temperatures	:	i.e., at temperatures
5.	Usually inhibit growth	:	Tends to slow down
6.	Too much	:	Excessive
7.	To meet the needs	:	Subsequently to meet the needs
8.	Good soil	:	A suitable soil
9.	Curly leaves	:	Has curly leaves
10.	Not good for salads	:	Less suitable for salads
11.	To wash rice	:	To rinse rice
12.	By sending plants	:	By watering the plants
13.	Rice undergoes	:	The rice undergoes
14.	Contains	:	Having
15.	Ingredients	:	Materials
16.	Gembor	:	Watering pot
17.	Necessary tools	:	Other necessary tools
18.	Rice washing water	:	Rice rinse water
19.	Watering the seed	:	Seed watering
20.	When the seeds are	:	If the seeds reach
21.	2 weeks	:	2 weeks old
22.	Embroidery	:	Plant Embroidery or Dead Plants Replacement
23.	By replacing them with	:	By replacing dead plants with
24.	As well as for disease	:	In addition, in terms of disease
25.	It must take action by	:	It must act by
26.	MST	:	WAP
27.	Information	:	Description
28.	In accordance with research	:	Relevant to
29.	Which states that	:	That say
30.	Hormones auxin and gibberellins	:	Auxin and gibberellins hormones
31.	Useful	:	Beneficial
32.	Note	:	Description
33.	This is in accordance	:	This finding is in accordance
34.	Which stated that	:	States that
35.	More number	:	Greater number
36.	Production of a plant	:	A plant production
37.	Head Wet Weight (g)	:	Head (Crown) Wet Weight (g)
38.	Was able to increase	:	Increased
39.	Was in B4	:	Being B4
40.	Which is significantly differ	:	Which differ