Vol. 13, No. 3 (2024): 914 – 923 http://dx.doi.org/10.23960/jtep-l.v13i3.914-923

JURNAL TEKNIK PERTANIAN LAMPUNG

ISSN 2302-559X (print) / 2549-0818 (online)
Journal homepage : https://jurnal.fp.unila.ac.id/index.php/JTP

Effect of Dosage and Frequency of Fertilization Application Potassium in Lowland Melon (*Cucumis melo* L.) Cultivation in Polybags

Viona Rahmadhanti[1], Nurlianti[1,✉], Sunarti, Sri Rustianti[1], Asfaruddin[1]

[1] Faculty of Agricultural, Universitas Prof. Dr. Hazairin, SH, Bengkulu, INDONESIA.

Article History:

Received : 01 September 2023
Revised : 11 February 2024
Accepted : 21 Mart 2024

Keywords:

Lowland,
Fertilization frequency,
Polybag cultivation,
Potassium dosage.

Corresponding Author:
✉ nurlianti.pertiwi@gmail.com
(Nurlianti)

ABSTRACT

Melon cultivation is usually cultivated in the highlands, but the development of melon cultivation in the lowlands has the potential to be developed. The problem is that ultisol with low fertility dominates the soil in the lowlands. Cultivating melons in polybags makes it possible to provide ideal nutrients for plant needs. The right frequency of fertilization can provide appropriate nutrients for each phase of plant growth. The study aimed to determine the best dose and frequency of potassium fertilizer application and the interaction between the two on the growth and yield of melon plants and the sweet taste of melons. The study used a randomized block design (RBD). Factor I: Potassium dose (D) 4 levels: control: 0 g per plant, D1: 30, D2: 40, D3: 50. The second factor is the frequency of application of Potassium (F) consisting of 3 levels, namely: F1: 4 times, F2: 6, and F3: 8. The results of the study showed that the frequency of application of potassium fertilizer had a significant effect on the flowering age of melon plants. A potassium fertilizer dose of 50 g per plant (D3) gave the best fruit weight and diameter and a higher sweetness than other treatments.

1. INTRODUCTION

Melon is a tropical fruit with a high content of water, fiber, vitamins, and minerals (Nerdy, 2017). Melon plants are annual plants with vines and soft stems, including the Cucurbitaceae family (Maulani, 2019). So far, melon cultivation has been carried out at an altitude of 250-800 m, with rainfall of 1,500-2,500 mm per year, humidity of 50-70%, and air temperature of 25˚-30˚C (Minarni *et al*., 2021). Good soil is andosol with a pH of 5.2-5.6 (Nerdy, 2017).

Melon production in Indonesia in declined from 138,177 tons in 2020 to 118,711 tons in 2022 (BPS, 2023a). Different trend is observed in the Bengkulu Province where melon production increased from 270.5 ton in 2021 to 402.3 ton in 2022 (BPS, 2023b). The decline in production was due to a decrease in harvested area from 8,211 ha in 2020 to 7,397 ha in 2021 (BPS, 2023a). Melon cultivation in Bengkulu is carried out on highland land. Along with the increasing consumption of melons and adjustments to people's diets supported by an increase in population, the community's need for melon consumption also increases (Ishak & Daryono, 2018). 138 177 129 147 118 711

Bengkulu Province consists of highland areas, namely the mountainous area of the Bukit Barisan, and lowland areas on the coast of the island of Sumatra. The development of melon cultivation in the lowlands has the potential to be developed. However, ultisols dominate the soil in the lowlands with a low fertility rate, which is acidic, poor in nutrients, and has little organic matter (Bertham *et al*., 2018). Cultivating melons in polybags makes it possible to provide ideal nutrients for plants to overcome lowland soil fertility problems. The problem in cultivating melons on ultisol land is the lack of nutrients needed by plants so that plant production cannot be optimal. The right frequency of fertilization is a solution so that the planting medium can provide the right nutrients at each phase of plant growth so that production reaches optimal levels (Maulani, 2019). Melon plants have shallow, long, and many roots (Robinson & Decker-Walters, 1997). However, the planting media in polybags tends to be easily compacted, whereas melon plants require loose media with high nutrients. Rationalization and balance between the ability of the soil to provide nutrients and the absorption of plants is an important thing to note. Gradual fertilization is needed in melon cultivation in polybags (Maulani, 2019).

Melon plants that are only fertilized with NPK compound fertilizer produce fewer sweet melons because NPK compound fertilizer only contains 16% element potassium. The high potassium nutrient plays a vital role in increasing the sweet taste of melons (Kamaratih & Ritawati, 2020). Potassium is a nutrient that increases fruit weight and quality (Parmila *et al*., 2019). Darwiyah *et al*. (2021) stated that adding potassium fertilizer affected the fruit weight, diameter, thickness, and sweet taste of melons. Adding potassium fertilizer with optimum doses increases the quality of fruit production (Maulani, 2019).

KCl fertilizer is the best choice because of its high potassium nutrient content, which is 60% (Kamaratih & Ritawati, 2020). KCl fertilizer is relatively cheap and easy to obtain (Alfandi *et al*., 2014). Fertilization at a dose of 40 g per plant affects melon fruit (Wiwiet, 2012). According to Mayang (2018), a potassium dose of 60 g per plant showed the best fruit weight and thickness in watermelon plants. A potassium dose of 45 g per plant is the best treatment and has a good effect on all production variables in melon plants (Ferdyansyah, 2022). Shinta & Nur (2022) explain that giving KNO_3 at a dose of 4 grams per plant provides the best sugar content in melons.

Subsequent fertilization is carried out after applying essential fertilizer until the time is nearing harvest time. Setting the timing of follow-up fertilization to meet plant nutrient needs is essential because it will affect the absorption time of nutrients in the plant growth phase (Zuhro *et al*., 2018). The research results of Iqbal *et al*. (2019) stated that the best melon fertilization was done four times the fertilization frequency. Follow-up fertilizer on melons with a frequency of 6 times showed the best melon fruit weight (Adim, 2020). Research on melon cultivation in the lowlands using polybags, which aims to determine the best dose and frequency of potassium fertilizer application and the interaction between melon plants' growth and yield and melons' sweet taste, is essential.

2. MATERIALS AND METHODS

2.1. Research Location

The research was conducted from November 2022 to February 2023 in Berkas Village, Teluk Segara District, Bengkulu City, Bengkulu Province. The altitude of the place is 8 m above sea level, and the research location is on the edge of the west coast of the island of Sumatra.

2.2. Research material

The materials used in this study were melon seeds of the Merlin F-1 variety, potassium KCl fertilizer, NPK compound, ultra-dap fertilizer, and Potassium Phosphate (MKP) fertilizer. The tools that will be used in this study are polybags, stakes, seedbed trays, scissors, knives, buckets, sprayers, ropes, hoes, machetes, scales, meters, plastic, wood, ruler, stationery, and documentation tools.

2.3. Research Procedure

The stages of the research include germination of melon seeds, nurseries, planting melon seeds, plant maintenance, and harvesting, as presented in a flow chart (Figure 1).

2.4. Research Design

This study used a randomized block design with two factors. The first factor was the dose of potassium (KCl) which consists of 4 levels, namely D0 = 0 KCl, D1 = 30, D2 = 40, D3 = 50 g per plant. Meanwhile, the second factor was

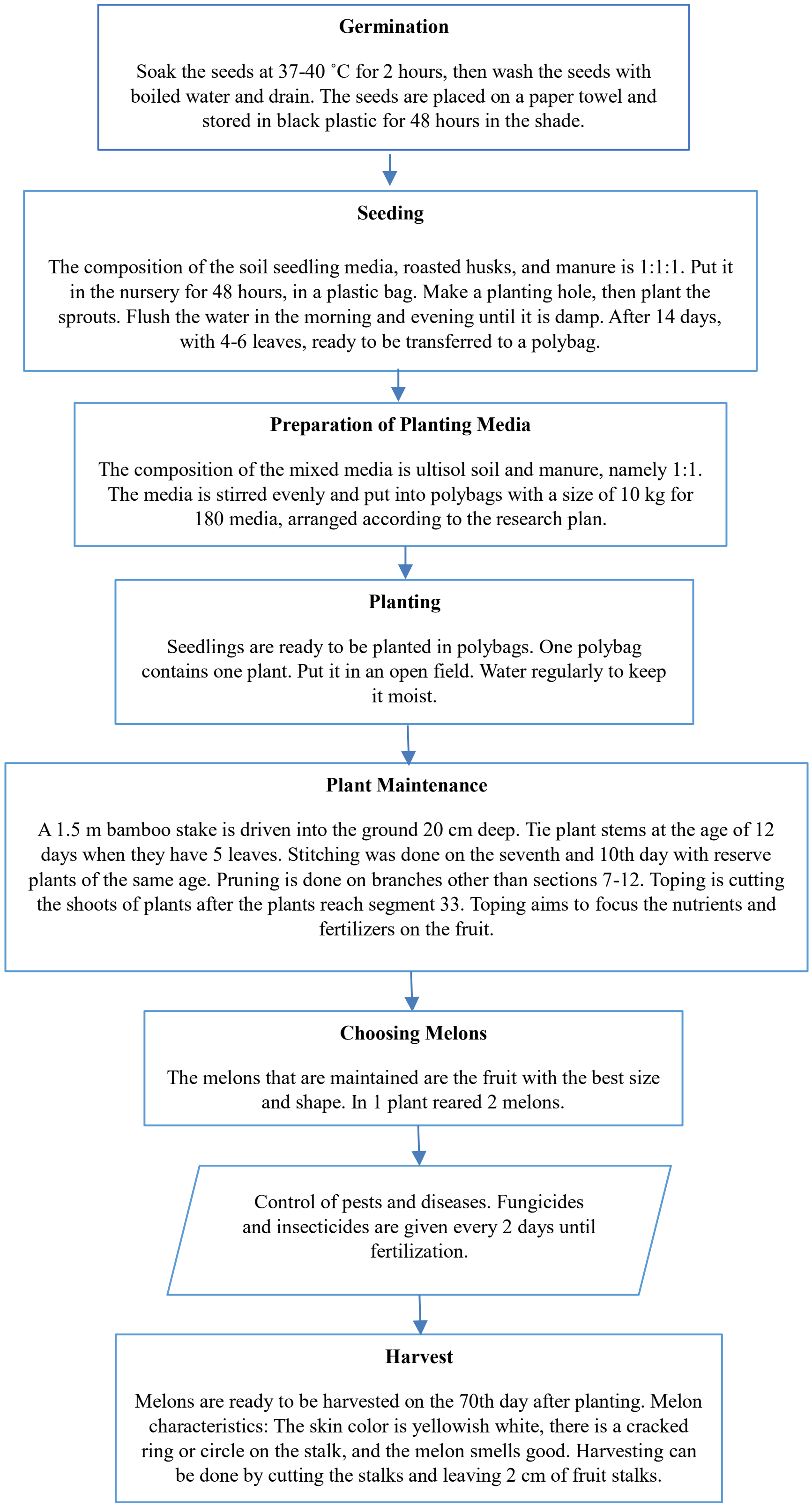

Figure 1. Steps of research on melon cultivation in polybags

frequency of potassium application (F) which consisting of 3 levels, namely F1 = 4 times fertilization, F2 = 6 times, and F3 = 8 times. Each treatment was replicated 3 times so that a total of 36 experimental units were provided. Each experimental unit consisted of 3 sample plants and 108 sample plants were supplied. Fertilizer application was started from 14 ays after planting (DAP) or 2 weeks after planting (WAP) with amount of KCl as shown in Table 1.

The observation variables consisted of plant height (cm), number of leaves (strands), flowering age (days), fruit weight of the plant (g), fruit diameter (cm), canopy wet weight (g), root wet weight (g), canopy dry weight (g), root dry weight (g), an organoleptic test of sweet taste in melon fruit.

Table 1. KCl fertilizer dose per plant for each treatment (g per plant)

Dose	Frequency	Plant age (days after planting)									Total
		7	14	21	28	35	42	49	56	63	
30	F1	-	-	-	-	7.5	7.5	7.5	7.5	-	30
	F2	-	-	-	5	5	5	5	5	5	30
	F3	-	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	30
40	F1	-	-	-	-	10	10	10	10	-	40
	F2	-	-	-	6.67	6.67	6.67	6.67	6.67	6.67	40
	F3	-	5	5	5	5	5	5	5	5	40
50	F1	-	-	-	-	12.5	12.5	12.5	12.5	-	50
	F2	-	-	-	8.33	8.33	8.33	8.33	8.33	8.33	50
	F3	-	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	50

Table 2. ANOVA recapitulation of the effect of the KCl fertilizer dosage and application frequency on melon plants

Variable	Dosage	Frequency	Interaction
Plant height (cm)			
1 WAP	2.25 ns	3.25 ns	1.41 ns
2 WAP	2.54 ns	1.54 ns	0.94 ns
3 WAP	2.31 ns	0.48 ns	0.78 ns
4 WAP	1.47 ns	0.25 ns	0.97 ns
5 WAP	1.54 ns	0.82 ns	0.32 ns
Number of Leaves			
1 WAP	1.44 ns	1.61 ns	0.46 ns
2 WAP	0.73 ns	1.79 ns	0.95 ns
3 WAP	1.52 ns	0.14 ns	0.29 ns
4 WAP	1.52 ns	0.03 ns	0.44 ns
5 WAP	0.51 ns	0.18 ns	0.63 ns
Flowering age	0.38 ns	5.11 *	2.34 ns
Fruit weight (g)	15.57 **	0.47 ns	1.99 ns
Diameter fruit (cm)	6.45 **	0.31 ns	1.16 ns
Canopy wet weight (g)	1.03 ns	1.48 ns	0.40 ns
Canopy dry weight (g)	1.75 ns	0.72 ns	1.00 ns
Root wet canopy (g)	1.95 ns	3.40 ns	0.77 ns
Root dry weight (g)	1.63 ns	0.82 ns	0.95 ns
F-table 5%	*3.05*	*3.44*	*2.55*
F-table 1%	*4.82*	*5.72*	*3.76*

Note: ** = very significant, *= significant, ns = non-significant

3. RESULTS AND DISCUSSION

The results of the analysis of variance (ANOVA) on all observed variables are presented in Table 2. Potassium fertilizer dose treatment had a very significant effect on fruit weight per plant and fruit diameter. The frequency of application of Potassium fertilization has a significant effect on the flowering age of melon plants. The interaction between dose and frequency treatment had no significant effect on all observed variables. Variable plant height, number of leaves at all ages of observation, and fresh and dry weight of roots and canopy showed no significant effect.

3.1. Plant Height (cm)

Based on ANOVA in Table 2, the treatment of potassium fertilizer dose and frequency of application and the interaction of the two factors showed no significant effect. The height growth of melon plants is presented in Figure 2. At the age of observation, 1 week after planting (WAP), the height of melon plants was 4.70 cm. Age 2 WAP was 15.11 cm, age 3 was 54.51 cm, age 4 WAP was 118.65 cm, and the age 5 WAP was 188.32 cm. This is presumably because the nutrients available in the soil have met the needs of plants during growth, so the addition of potassium does not affect the growth process of plant height .This is thought to be because the nutrients available in the polybag media, which is a mixture of ultisol soil and manure in a ratio of 1:1, have been able to meet the plant's needs for the height growth of melon plants, so the addition of potassium does not affect plant height growth. According to Sitompul (2017), vegetative growth, including plant height, requires more nitrogen nutrients, so the addition of potassium does not significantly affect the growth process of plant height. Nutrient content of potassium in the soil is sufficient for plant growth, so even if the dose of KCl fertilizer is increased, the results will have no effect. Genetic factors influence plant height and are not influenced by environmental factors, especially potassium nutrients in melon plants. The average height of melon plants at harvest age, namely 5 weeks after planting (WAP), reaches 188.32 cm (Figure 2).

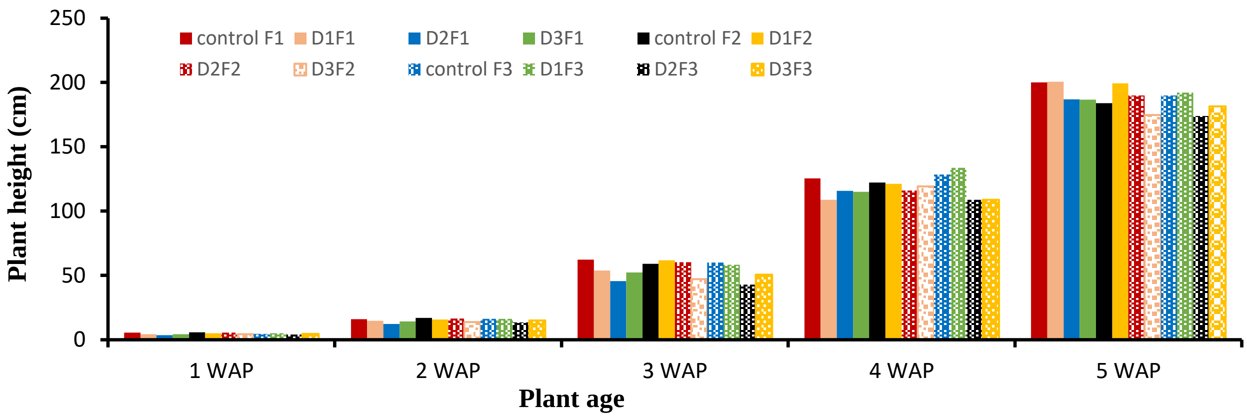

Figure 2. Height growth of melon plants at age 1 to 5 WAP

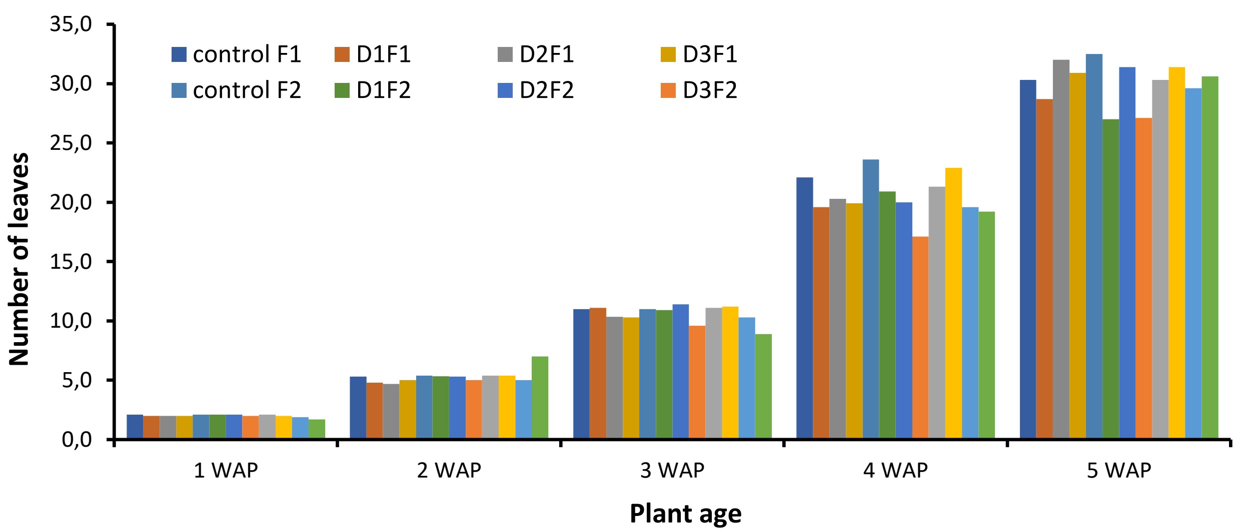

Figure 3. The growth of the number of leaves of the melon plant at age 1-5 WAP

3.2. Number of Leaves

The treatment dose and frequency of potassium fertilization application had no significant effect on the number of leaves Figure 3. for all observation times. Age 1 WAP number of melon leaves are 2. At the age of 2 WAP, the number of leaves of melon is 5. At the age of 3, the WAP of melon leaves is 11. At the age of 4 WAP, the number of melon leaves is 21, and at the age of 5 WAP, the number of melon leaves is 30. This is in line with Gunadi (2009), who stated that the influence of potassium fertilizer doses was not significantly different in the number of shallots leaves at all ages of observation. Based on Alfian & Purnamawati (2019), the time factor application and interaction between doses did not significantly affect the number of sweet corn leaves. In contrast, KCl dosing did not significantly affect the number of leaves ages 3 and 4 WAPs.

3.3. Wet weight and dry weight of the shoot

Based on ANOVA, it was stated that the dose and frequency of potassium fertilization application and the interaction between dose and frequency had no significant effect on the wet weight of the melon plant canopy and the dry weight of the melon plant canopy, as shown in Figure 4.

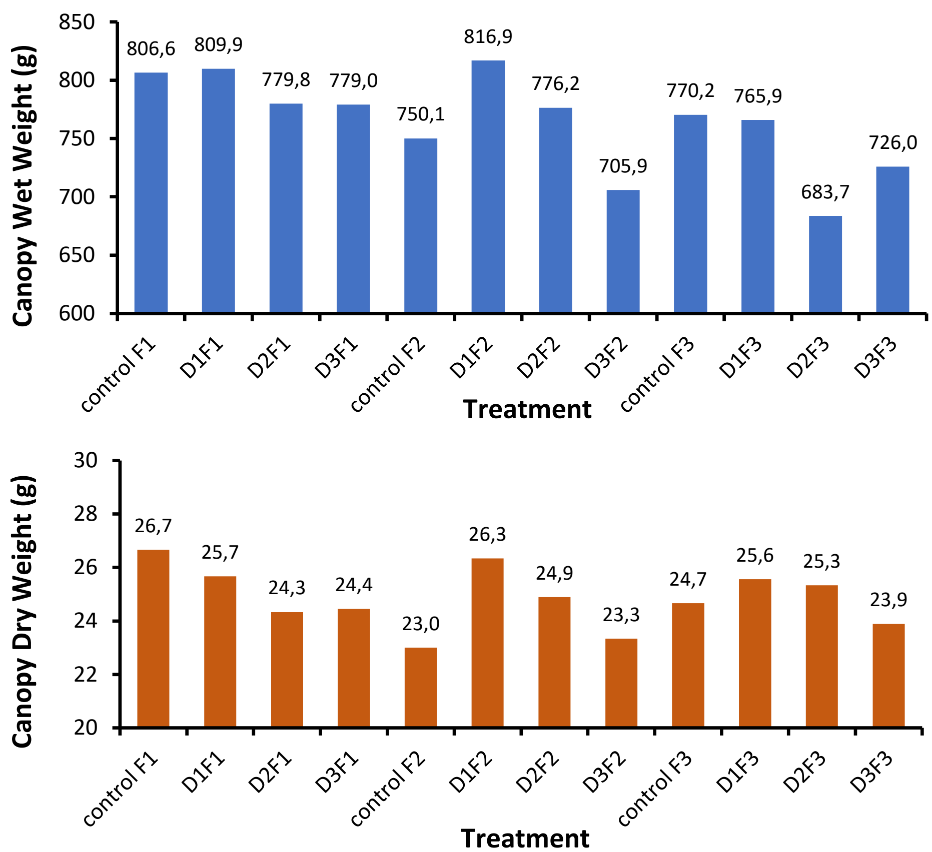

Figure 4. Effect of dosage and frequency of application of KCl on fresh weight (top) and dry weight (bottom) of melon shoot

3.4. Wet weight and dry weight of the root

The results of the ANOVA indicated that the dose and frequency of potassium fertilization application and the interaction between dose and frequency had no significant effect on the wet and dry weight of melon plant roots, as shown in Table 5. Observations on the dry weight of the shoots and the dry weight of the roots showed that the dose and frequency of application of fertilizers had no significant effect. Vegetative growth is more influenced by nitrogen, not potassium. Hanafiah (2018) added that the formation of leaf and shoot organs is influenced by nitrogen.

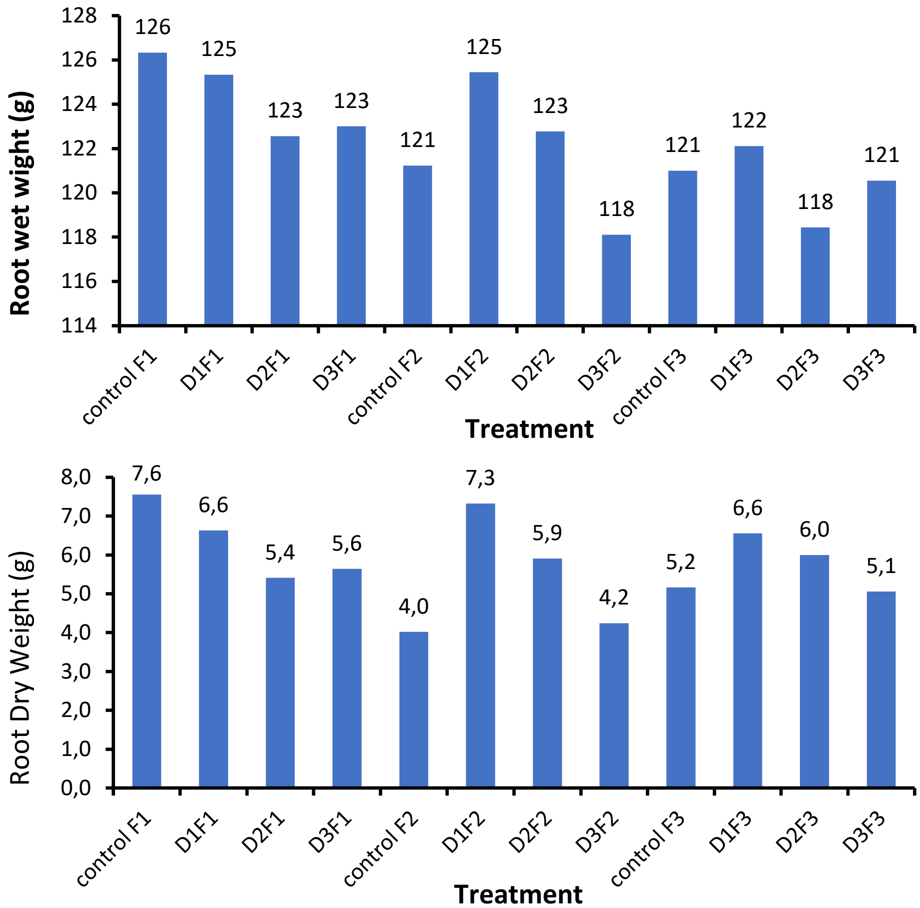

Figure 5. The effect of the dose and frequency of KCl application on the wet weight and the dry weight of the roots of melon plants

3.5. Flowering age

The results of ANOVA showed that the frequency of application of potassium fertilizer had a significant effect on flowering time. The DMRT test at the 5% level results that the average flowering age of melon plants with four times frequency (F1), which is 21.3 days, is not significantly different from the six times frequency (F2) fertilization treatment, which is 21.8 days. Both are significantly different from the eight times frequency fertilization treatment (F3), which is 22.6 days.

The increase in the frequency of potassium fertilization from 4 times to 6 times did not significantly differ from the flowering time of 20 days. However, after increasing it to 8 times potassium fertilization, the flowering time became longer, namely 22 days. Daniel (2017) stated that the age of flowering plants is thought to be due to the fulfillment of potassium nutrients in the growth of melon plants. Berlian (2016) explains the function of Potassium to stimulate faster flower growth. Adding potassium nutrients eight times causes the flowering phase to be more extended. The faster the flowering time will benefit farmers because the plants quickly go through the vegetative phase so that the harvest life will be shorter.

3.6. Fruit weight per plant and fruit diameter

The results of ANOVA showed that the dose treatment had a very significant effect on the fruit weight of the plants. The DMRT follow-up test results at the 5% level are presented in Table 3. The results of observing fruit weight per plant in the treatment of potassium fertilizer doses showed a very significant effect. Further tests showed that the highest dose of 50 g per plant could give the best melon fruit weight. Control treatment without additional KCl showed the most negligible fruit weight, 1371.04 g. This is in line with Alfian & Purnamawati (2019). The KCl fertilizer dose factor had a very significant effect on all yield variables. They gave potassium results in better production because potassium plays a vital role in photosynthesis. According to Ambarwati *et al*. (2020), the application of potassium fertilizer affects the period of fruit formation so that it will increase the weight of the harvested fruit. The higher the soil's potassium nutrient status, the more sufficient the plant's need for potassium nutrients. Potassium deficiency will reduce photosynthesis, plant growth, and fruit weight produced.

Table 3. Effect of KCl dose on fruit weight per plant and fruit diameter

Dose (g per pant)	Fruit weight per plant (g)	Diameter fruit (cm)
Control	1371,04 c	22,60 c
D1=30	1630,15 b	23,46 b
D2=40	1609,15 b	23,55 b
D3=50	1825,17 a	24,43 a

Note: Numbers followed by the same letter in the same column are not significantly different at the 5% level

In Table 4, the results of observations of fruit diameter in the treatment of potassium fertilizer doses showed a significant effect. The follow-up tests showed that the highest dose treatment, namely 50 g per plant (D3), gave the highest diameter to melons of 24.43 cm and significantly differed from the control treatment, which gave the lowest diameter, 22.60 cm. Giving KCl causes the melons to get bigger. This is because the nutrients absorbed by the plant affect the size of the photosynthate channeled into the fruit, affecting fruit enlargement as indicated by the high number of fruit diameters (Ambarwati *et al*., 2020). The physiological processes will run well if the available nutrients are sufficient for the plant, resulting in increased growth, fruit weight, and fruit diameter (Bachtiar, 2018). Fruit weight and fruit diameter showed the same pattern, namely increasing the dose of Potassium, fruit weight and fruit diameter would increase. The correlation coefficient (r = + 0.9) shows the correlation between fruit weight and diameter. This means that an increase will follow the increase in fruit weight in fruit diameter.

Table 4. Organoleptic score for sweet taste and texture of melon fruit treated with dose and frequency of KCl fertilizer application

Treatment	**Average respondent**		
	Harvest time	**3 Days after harvest**	**6 Days after harvest**
Control	1	1	1
D1F1	1.8	2	2,1
D2F1	2	2,1	2,4
D3F1	1.9	2,2	2,2
D1F2	2.5	2,5	2,6
D2F2	2.4	2,5	2,7
D3F2	2.6	2,6	2,7
D1F3	1.3	1,3	1,9
D2F3	2.6	2,7	2,8
D3F3	2.9	3	3

Note: 1= not sweet, 2= medium, 3= sweet

3.7. Organoleptic sweetness test

Organoleptic test results from 10 panelists using the hedonic method showed differences in taste for each treatment. Tests were carried out at harvest time, three days after, and six days after harvest. Each panelist scored 3-1 for sweet, medium, and not sweet (Suneth & Tuapattinaya, 2016). The D3F3 treatment dose of 50 g per plant and fertilization frequency eight times was 2.9, meaning it was sweet with a crunchy fruit texture at harvest, while the control treatment with a value of 1 was not sweet with a crunchy texture. The results of the melon taste test after three days of harvest found the highest average in the D3F3 treatment, namely three, which means sweet. The treatment with the lowest result was in the control treatment, namely one, and the D1F3 treatment, namely 1.3, was classified as not sweet. The taste test on the sixth day after harvest was the highest on average in the D3F3 treatment, which was 3, which meant sweet, and the lowest was in control, namely 1.0 and D1F3, which was 1.9, classified as not sweet.

It was concluded that the higher and more frequent doses of Potassium would produce a sweet melon taste at the beginning of harvest, three days after harvest, and six days after harvest. The crispness of melons will decrease for a longer time after harvest. According to Lester *et al*. (2010), potassium can improve the quality of fruit and melon plants grown in greenhouses. Giving additional potassium with higher doses can increase the sweet taste of the fruit (Demiral & Köseoglu, 2005). The highest level of sweetness is obtained from melon plants treated with KNO3 50 % (Darwiyah *et al*., 2021).

4. CONCLUSIONS AND SUGGESTIONS

The study results concluded that the interaction between the dose and potassium fertilization frequency did not significantly affect all observed variables. Potassium fertilizer dose treatment significantly affected fruit weight per plant and fruit diameter of melon plants. The highest dose of potassium fertilizer, 50 g per plant (D3), gave the best fruit weight and diameter. The frequency of potassium fertilizer application significantly affected melon plants' flowering age. Giving potassium with the highest frequency will extend the flowering phase of melon plants. The higher and more frequent doses of potassium will produce a sweeter and crisper melon taste than other treatments in the early harvest phase, three days after harvest, and six days after harvest. The crispness of melons will decrease with time after harvest. Based on the research results, giving the dose of 50 g per plant is recommended for lowland melon cultivation in polybags because this dose produces a sweet melon taste with better fruit weight and diameter.

ACKNOWLEDGEMENT

Appreciation is delivered to the Faculty of Agriculture, Universitas Prof. Dr. Hazairin, SH Bengkulu, and all its supporting units, especially the laboratory and research materials from the Badan Penelitian dan Pengembangan Pertanian (BPPP) Province of Bengkulu.

REFERENCES

Adim, M. (2020). Pengaruh dosis dan frekuensi waktu pemupukan kcl terhadap pertumbuhan dan hasil tanaman melon (*Cucumis melo* L.) pada sistem irigasi tetes. [*Thesis*], Jurusan Budidaya Pertanian, Universitas Sriwijaya.

Alfandi, A., Wahyuni, S., & Ipa, A. (2014). Pengaruh takaran pupuk nitrogen dan pupuk kalium terhadap pertumbuhan dan hasil tanaman tomat (*Lycopersicum esculentum* Mill.) kultivar permata. *Jurnal Agroswagati*, ***2***(2), 189-198.

Alfian, M.S., & Purnamawati, H. (2019). Dosis dan waktu aplikasi pupuk kalium pada pertumbuhan dan produksi jagung manis di BPP Batangkaluku Kabupaten Gowa Sulawesi Selatan. *Buletin Agrohorti*, ***7***(1), 8-15. https://doi.org/10.29244/Agrob.V7i1.24404.

Ambarwati, D.T., Syuriani, E.E., & Pradana, O.C.P. (2020). Uji respon dosis pupuk Kalium terhadap tiga galur tanaman tomat (*Lycopersicum esculentum* Mill.) di lahan Politeknik Negeri Lampung. *J-Plantasimbiosa*, ***2***(1), 11-21. https://doi.org/10.25181/Jplantasimbiosa.V2i1.1608.

Bachtiar, A.I. (2018). Pengaruh penambahan dosis pupuk kascing dan kalium terhadap pertumbuhan dan hasil terung (*Solanum melongena L.*). [*Thesis*]. Jurusan Budidaya Pertanian, Universitas Jember.

Bertham, Y.H., Aini, N., & Murcitro, B.G. Nusantara, A.D. (2018). Uji coba empat varietas kedelai di kawasan pesisir berbasis biokompos. *Biogenesis Jurnal Ilmiah Biologi*. ***6***(1), 36–42. https://doi.org/10.24252/bio.v6i1.4144.

BPS (Badan Pusat Statistik). (2023a). Statistik Indonesia 2023 – Statistical Yearbook of Indonesia 2023. Badan Pusat Statistik, Jakarta: 780 pp.

BPS (Badan Pusat Statistik). (2023a). Provinsi Bengkulu Dalam Angka 2023 – Bengkulu Province in Figures 2023. Badan Pusat Statistik Provinsi Bengkulu, Bengkulu: 632 pp.

Darwiyah, S., Rochman, N., & Setyono. (2021). Produksi dan kualitas melon (*Cucumis melo L.*) Hidroponik rakit apung yang diberi nutrisi kalium berbeda. *Jurnal Agronida*, ***7***(2),94-103.

Demiral, M.A., & Köseoglu, A.T. (2005). Effect of potassium on yield, fruit quality, and chemical composition of greenhouse-grown galia melon. *Journal of Plant Nutrition*, ***28***(1), 93-100. https://doi.org/10.1081/Pln-200042179.

Ferdyansyah, B. (2022). Pengaruh jenis dan dosis pupuk kalium terhadap pertumbuhan, produksi dan kemanisan buah melon (*Cucumis melo L*.). [*Thesis*]. Jurusan Agroteknologi Fakultas Pertanian, Universitas Islam Riau.

Gunadi, N. (2009). Kalium sulfat dan kalium klorida sebagai sumber pupuk kalium pada tanaman bawang merah. *Jurnal Hortikultura*, ***19***(2), 174-185.

Hanafiah, K.A. (2018). *Dasar-Dasar Ilmu Tanah*. Rajawali Pers, Depok: 360pp

Iqbal, M., Barchia, F., & Romeida, A. (2019). Pertumbuhan dan hasil tanaman melon (*Cucumis melo L*.) pada komposisi media tanam dan frekuensi pemupukan yang berbeda. *Jurnal Ilmu-Ilmu Pertanian Indonesia*, ***21***(2), 108-114. https://doi.org/10.31186/jipi.21.2.108-114

Ishak, M.A., & Daryono, B.S. (2018). Kestabilan karakter fenotip melon (*Cucumis melo L*. 'Sun Lady') hasil budidaya di Dusun I, Prambanan, D.I.Yogyakarta. Prosiding Seminar Nasional Pendidikan Biologi dan Saintek III (2018), 118-125.

Kamaratih, D., & Ritawati, R. (2020). Pengaruh pupuk KCl dan KNO3 terhadap pertumbuhan dan produksi tanaman melon hibrida (*Cucumis melo L*.). *Hortuscoler*, ***1***(02), 48-55. https://doi.org/10.32530/jh.v1i02.255.

Lester, G.E., Jifon, J.L., & Makus, D.J. (2010). Impact of potassium nutrition on postharvest fruit quality: Melon (*Cucumis melo* L) case study. *Plant Soil*, ***335***, 117–131. https://doi.org/10.1007/s11104-009-0227-3

Maulani, N.W. (2019). Pengaruh kombinasi dosis pupuk pganik dan pupuk kalium terhadap pertumbuhan dan hasil tanaman melon (*Cucumis melo L*) varietas madesta F1. *Jurnal Agrorektan*, ***6***(2), 59-76. https://doi.org/10.35569/agrorektan.v9i1.

Mayang, G.G. (2018). Pengaruh Dosisi Kalium dan Jumlah Cabang Terhadap Hasil dan Kualitas Buah Semangka. [*Undergraduate Thesis*]. Department of Agrotechnology, Faculty of Agriculture, University of Jember.

Minarni, E.W., Nurtiati, N., & Istiqomah, D. (2021). Pemberdayaan kelompok wanita tani dalam budidaya melon hidroponik di pekarangan. *Prosiding.Seminar Nasional LPPM Unsoed 11(1) 2021*.

Nerdy, N. (2017). Determination of vitamin C In several varieties of melon fruits by titration method. *Jurnal Natural*, ***17***(2), 118-121. https://doi.org/10.24815/jn.v17i2.8255.

Parmila, P., Purba, J.H., & Suprami, L. (2019). Pengaruh dosis pupuk petroganik dan kalium terhadap pertumbuhan dan hasil semangka (*Citrulus vulgaris Scard*). *Agro Bali: Agricultural Journal*, ***2***(1), 37-45. https://Doi.Org/10.37637/Ab.V2i1.368.

Robinson, R.W., & Decker-Walters, D.S. (1997). *Cucurbits*. CAB International, New York, USA: 226 pp.

Sitompul, S.S., Husna, Y. & Murniati. (2017). Pengaruh pemberian pupuk kandang dan KCl terhadap pertumbuhan dan produksi tanaman bawang Merah (*Allium ascalonicum L*.). *Jom Faperta*, ***4***(1), 13-21.

Shinta, F.S., & Nur, W.S. (2022). Pengaruh dosis pupuk KNO_3 terhadap kadar gula pada tiga varietas melon di BPP Lampung. *AgroSainT*a, ***6***(1), 1-8.

Suneth, N.A., & Tuapattinaya, P.M.T. (2016). Uji organoleptik selai buah salak (*Salacca edulis Reinw*) berdasarkan penambahan gula. *Biopendix: Jurnal Biologi, Pendidikan dan Terapan*, ***3***(1), 40-45. https://doi.org/10.30598/biopendixvol3issue1page40-45.

Wiwiet, S. (2012). Pengaruh dosis pupuk kalium dan pemangkasan cabang terhadap hasil melon. [*Thesis*]. Jurusan Budidaya Pertanian UPN Yogyakarta.

Zuhro, F., Hasanah, H.U., Winarso, S., & Habibah, S. (2018). Efektivitas pupuk organik diperkaya pada pertumbuhan vegetatif tabulampot jambu air madu deli hijau (*Syzygium samarangense (Blume) Merr. & L.M. Perry*). *Agritrop : Jurnal Ilmu-Ilmu Pertanian*, ***16***(2), 97-109. https://doi.org/10.32528/agritrop.v16i2.1811.