

## DAFTAR PUSTAKA

- Aksenova, N.P., Konstantinova, T.N., Golyanovskaya, S.A., Sergeeva, L.I., and Romanov, G.A., 2012. Hormonal Regulation of Tuber Formation in Potato Plants. *Russian Journal of Plant Physiology*. 59 (4): 451–466.
- Berg, J.M., J.L. Tymoczko, and L. Stryer. 2002. *Biochemistry 5th Edition*. WH Freeman. p. 108-109.
- Berova, M. dan Zlatev, Z. 2000. Physiological response and yield of paclobutrazol treated tomato plants (*Lycopersicon esculentum* Mill). *Plant Growth Regul.* 30 (2) : 117-123.
- Chen B M., Wang, Z H., Li, S X., Wang, G x., Song, H X., dan Wang, X N. 2004. Effect of nitrate suplay on plant growth, nitrate accumulation, metabolic nitrate concentration and nitrate reductase activity in three leafy vegetable. *Plant Science*. 167 : 635-643
- Crop Ideas, Agricultural Crop Consulting an Ideas. 2015. <http://www.cropideas.com/granolapic.html>. Diakses pada tanggal 31 Desember 2015 pukul 21.15 WIB
- Direktorat Jendral Hortikultura. 2006. *Prosedur operasional Standar Budidaya Kentang Kultivar Granola (Solanum tuberosum L.) Kabupaten Bandung Provinsi Jawa Barat*.
- Dwijoseputro. 1991. *Pengantar Fisiologi Tumbuhan*. Gramedia. Jakarta.
- Fernie, A.R. dan Willmitzer, L., 2001. Molecular and biochemical triggers of potato tuber development. *Plant Physiol.* 127: 1459-1465.
- Fletcher, R. A., Kallidumbil, V. and Steele, P., 1982. An improved bioassay for cytokinin using cucumber cotyledons. *Plant Physiol.* 69 : 675-677.
- Fletcher, R. A., Gilley, A., Sankhla, N. and Davis, T., 2000. Triazoles as plant growth regulators and stress protectants. *Hort. Review* 24 : 55-138.
- Gan, S., Amasino, R. M. 1995. Inhibition of leaf senescence by autoregulated production of cytokinin. *Science* 270 : 1986-1988
- Gardner, F. P., Pearce, R. B dan Mitchell, R. I. 1991. *Fisiologi Tumbuhan Budidaya*. (diterjemahkan oleh herawatisusilo). UI Press. Jakarta.
- Ginting J. 2003. *Pengaruh pemberian nitrogen dan konsentrasi sitokinin terhadap produksi dan kualitas umbi kentang (Solanum Tuberosum L.) kultivar granola*. Tesis. Universitas Sumatera Utara.
- Graebe, J. E., 1987. Gibberellin biosynthesis and control. *Annu. Rev. Plant Physiol.* 38 : 419-465.
- Hamid, M.M. dan Williams, R.R., 1997. Translocation of paclobutrazol and gibberellic acid in Stuart's desert pea (*Swainsona formosa*). *Plant Growth Regul.* 23: 167-171.
- Hartiko, H. 1983. *Leaf and root in vivo nitrate reductase activities of coconut (Cocos nucifera L.) cultivar and hybrid*. PhD desertation University of the Philipines at Los Banos, Laguna philipines.

- Houghan, P.A., Burden, R. S., Lenton, J. R., and Goad L. J., 1989. Inhibition of celery cell growth and sterol biosynthesis by the enantiomers of pacloburazol. *Phytochem.* 28 (3) : 781-787
- Harvey, D. 2000. *Modern Analytical Chemistry First Edition*. USA: McGraw-Hill Companies Inc. p.597.
- Hedden, P. dan Graebe, J.E., 1985. Inhibition of gibberellins biosynthesis by paclobutrazol in cell-free homogenates of *Cucurbita maxima* endosperm and *Malus pumila* embryos. *J. Plant Growth Regulation.* 4: 111-112.
- Hendriks, T., Vreugdenhil, D. dan Stiekema, W., 1991. Patatin and four serine protease inhibitor genes are differentially expressed during potato tuber development. *Plant Mol. Biol.* 17: 385-394.
- Hopkins, W. G. and Norman, P. A. H. 2008. *Introduction to Plant Physiology 4th edition*. Wiley & Sons, Inc. United States of America. p. 101.
- Izumi K., Nakagawa, S., Kobayashi, M., Oshio, H., Sakurai, A. dan Takahashi, N., 1988. Levels of IAA, cytokinins, ABA and ethylene in rice plants as affected by GA biosynthesis inhibitor, uniconazole-P. *Plant Cell Physiol.* 29: 97-104.
- Jackson, S., James P., Prat, S. dan Thomas, B. 1998. Phytochrome B effects the levels of a graft-transmissible signal involved in tuberization. *Plant Physiol.* 117: 29-32.
- Jackson S. D. 1999. Multiple signalling Pathways control tuber induction in potato. *Plant Physiol.* 119 : 1-8
- Khalil, I. A., 1995. Chlorophyll and carotenoid contents in cereals as affected by growth retardants of the triazole series. *Cereal Res. Comm.* 23 : 183-189.
- Klug, W. S., M. R. Cummings, C. A. Spencer, and M.A. Palladino. 2012. *Concepts of Genetics. 10th edition*. Pearson Education, Inc. California, pp. 556-557.
- Lestari, E. G. 2006. Hubungan antarakerapatan stomata denganketahanankekeringan padasomaklonpadigajahmungkur, towuti, dan IR 64. *Jurnal Biodiversitas.* 7 (1) : 44-48
- Mamarimbing, R. 2002. Hasilpadigogo (*Oryza sativa* L.) terhadap pemberian paklobutrazol. *Eugenia* 9 (3) : 169-173
- Maniatis, T., E.F. Fritsch and J. Sambrook. 1989. Chapter 5, protocol 1. *Molecular Cloning- A Laboratory Manual Volume 1 2nd Edition*. Cold Spring Harbor Laboratory Press p. 5.2-5.3
- Marschner H., 1995. *Mineral Nutrition of Higher Plants*, Academic Press, London, pp.229-312.
- Martin, A., Adam, H., Mendoza, M.D., Zurczak, M., Schain, N.D.G and Lopez, P.S. 2004. Graft-transmissible induction of potato tuberization by the microRNA *miR172*. *Development.* 136: 2873-2881.
- Menzel C. M. 1981. Tuberization in potato at higher temperatures: promotion by disbudding. *Annalyze Botany.* 47 : 727-733
- Menzel, C.M., 1985. Tuberization in potato (*Solanum tuberosum* cultivar Sebago) at high temperature: Interaction between temperature and irradiance. *Annalyze Botany* 55: 35-39

- Min, Y. K., Asami, T., Fujioka, S., Murofushi, N., Yamaguchi, I., and Yoshida S. 1999. New lead compound for Brasinosteroid biosynthesis inhibitors. *Bioorganic and Medical Chemistry Letters*. 9 : 425-430
- Monia, B. P., D. J. Ecker, and S. T. Crooke. 1990. New Perspectives on The Structure and Function of Ubiquitin. *Nature Biotechnology*, 8 : 209-215.
- Morpurgo R. and Ortiz R. 1988. Morphological variation in potato (*Solanum* spp.) under contrasting environments. *Environment Botany*. 28 : 165-169.
- Mulligan, D.R. dan Patrick, J.W., 1979. Paclobutrazol and ancymidol protect corn seedling from high and low temperature stresses. *Plant* 145:233-238
- Nugroho, L. H., Purnomo. Sumardi, I. 2010. *Struktur dan perkembangan tumbuhan*. penebar swadaya. Jakarta. Hal.86.
- Pfaffl, M. W., A. Tichopad, C. Prgomet and T. P. Neuvians. 2004. Determination of Stable Housekeeping Genes, Differentially Regulated Target Genes & Sample Integrity : Best keepern – Excel Based Tool Using Pair-Wise Correlations. *Biotechnology Letter*, 26 : 509-515
- Pitojo, Setijo. 2004. Benih Kentang. Kanisius. Yogyakarta. Hal.34-38: 92.
- Pratiwi, R. 2001. Mengenal Metode Elektroforesis. *Oseana*, XXV(1) : 27.
- Ray, A., Beer, K.R., Ray, S., Baker, S.C., Lang, J.D., Preus, D., Milligan, S.B., and Gasser, C.S. 1994. Arabidopsis Floral Homeotic Gene BELL (BELI) Controls Ovule Development Through Negative Regulation of AGAMOUS Gene (AG). *USA*. 91: 5761-5765
- Roitsch, T. Ehneb, R., 2000. Regulation of source/sink relations by cytokinins. *Plant Growth Regulation*. 32: 359-367
- Roumeliotis, E., Kloosterman, B., Oortwijn, M., Kohlen, W., Bouwmeester, H.J., Visser, R.G.F. and Bachem, C.W.B. 2012. The effects of auxin and strigolactones on tuber initiation and stolon architecture in potato. *Journal of Experimental Botany*. 132: 1-9.
- Rubatzky, V, E., dan M. Yamaguchi. 1998. Sayuran dunia 1; Prinsip, Produksi dan gizi . Terjemahan C. Horison. ITB , Bandung. Hal 115-143.
- Sakakibara, H. 2006. Cytokinins : Activity, biosynthesis, and translocation. *Annu. Rev. Plant. Biol* 57 : 431-449
- Samadi, B. 2007. *Kentang dan analisis usahatani*. Kanisius. Yogyakarta. Hal 115
- Sambrook J. and D.W. Russell. 2001. *Molecular Cloning: a Laboratory Manual*, 3rd edition. Cold Spring Harbor Laboratory Press. New York. Pp. 820-821
- Salisbury, F. B., and Ross, C. W. 1995. *Fisiologi Tumbuhan Jilid 3* (diterjemahkan oleh Diah dan Sumaryono). Penerbit ITB Bandung.
- Schulling, T. 2004. Cytokinins. In *encyclopedia of biological chemistry* (Eds Iennarz, W., Lane, M. D., Academic press/Elsevier science)
- Sebastian, B., Alberto, G., Emilio, A.C., Jose, A.F. dan Juan, A.F., 2002. Growth, development and colour response of potted *Dianthus caryophyllus* cv. mondriaan to paclobutrazol treatment. *Science Horticulture*. 1767: 1-7
- Serena, P. L., Moubayidin and S. Sabatini. 2010. The molecular basis of cytokinin function. *Curr. Opt. In Plant Bio*. 13 : 21-26
- Shah, S. H., 2007. Effect of kinetin spray on productivity of Black Cumin plants. *Russ J. Plant Physiol* 54 (5) : 702-705

- Sharma, P., Lin, T., Grandellis, C., Yu, M. and Hannapel, D.J. 2013. The BEL1-like family of transcription factors in potato. *Journal of Experimental Botany*. 65 (2): 709–723.
- Simko, I., 1994. Effect of paclobutrazol on in vitro formation of potato micro-tubers and their sprouting after storage. *Biol. Plant*. 36(1):15-20
- Struik, P.C., Vreugdenhil, D., Van Eck, H.J., Bachem, C.B. dan Visser, R.G.F., 1999. Physiologic and genetic control of tuber formation. *Potato*. 42: 313-331
- Sugavanam, B., 1984. Diastereoisomers and enantiomers of paclobutrazol: their preparation and biological activity. *Pesticide Science*. 15: 296-302
- Swandi, N., Sumarni, S., Kusumo dan Z. Abidin. 1987. Bercocok tanam kentang. Dalam Ashadi (ed) kentang, balitbang balai penelitian hortikultura, Lembang. Hal 23
- Thornton M. K., Malik N. J. and Dwelle R. B. 1996. Relationship between leaf gas exchange characteristics and productivity of potato clones grown at different temperatures. *Potato J*. 73 : 63-77
- Tsegaw, T. 2005. *Response of potato to paclobutrazol and manipulation of reproductive growth under tropical conditions*. PhD dissertation University of Pretoria, Pretoria
- Tsegaw, T. and P. S. Hammes. 2006. Response of potato grown under non-inductive condition to paclobutrazol, netrazol : shoot growth, chlorophyll content, net photosynthesis, assimilate partitioning, tuber yield, quality and dormancy. *Plant Growth Regulation*. 43 : 227-236.
- United States Department of Agriculture (USDA), Natural Resources Conservation Service. 2015. (<http://www.plants.usda.gov/core/profile?symbol=SOTU>). Diakses pada 08 Januari 2017 pukul 06.18 WIB.
- Vandam J., Kooman P. L. and Struik P. C. 1996. Effect of temperature and photoperiod on early growth and final number of tubers in potato (*Solanum tuberosum* L.). *Potato*. 39 : 51-62.
- Wang, Z. H., Z.-Q. Zong, S.-X. Li, B.-M. Chen. 2002. Nitrate accumulation in vegetables and its residual in vegetable field, *Environ. Sci* : 79-83.
- Wilson, L. A. 1977. Root crops In P. De Alvim and T. T. Kozlowski (eds). *Ecophysiology of tropical crop*. Academic Press, New York. pp 187-223
- Witchard, M., 1997. Paclobutrazol is phloem mobile in castor oil plants (*Ricinus communis* L.). *J. Plants Growth Regulation*. 16 : 215-217.
- Xu, X., Van Lammeren, A., Verner, E., and Vreugdenhil, D., 1998. The role of gibberellin, abscisic acid and sucrose in the regulation of potato tuber formation *in vitro*, *Plant Physiol*. 117 : 575-584.
- Xu, X., Vreugdenhil, D. V. dan Van Lammeren, A. M., 1998. Cell division and enlargement during potato tuber formation. *J. Experimental Botany*. 49: 573-582
- Yim, K. O., Kwon, Y. W. dan Bayer, D.E., 1997. Growth responses and allocation. *J. Plant Growth Regulation*. 16 : 35-41.
- Yu, Yueyue. 2006. Identification of StBEL5 RNA as a long-distance mobile signal in short-day facilitated tuber formation. *Retrospective Theses and Dissertations*. Iowa State University

## LAMPIRAN

### 1. Uji ANOVA dan Tukey HSD Tinggi Tanaman

#### Between-Subjects Factors

	Value Label	N
perlakuan	1 S0P0	10
	2 S0P12.5	10
	3 S0P25	10
	4 S12.5P0	10
	5 S12.5P12.5	10
	6 S12.5P25	10
	7 S25P0	10
	8 S25P12.5	10
	9 S25P25	10
ulangan	1 ulangan 1	9
	2 ulangan 2	9
	3 ulangan 3	9
	4 ulangan 4	9
	5 ulangan 5	9
	6 ulangan 6	9
	7 ulangan 7	9
	8 ulangan 8	9
	9 ulangan 9	9
	10 ulangan 10	9

#### tinggi tanaman (cm)

	perlakuan	N	Subset		
			1	2	3
Tukey HSD <sup>a</sup>	S25P12.5	10	42.7000		
	S0P12.5	10	43.1000		
	S25P25	10	44.7000		
	S12.5P25	10	46.1000		
	S0P25	10	49.5000	49.5000	
	S12.5P12.5	10	51.5000	51.5000	
	S12.5P0	10		64.8000	64.8000
	S25P0	10		64.9000	64.9000
	S0P0	10			81.4000
	Sig.			.805	.137

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 152,350.

#### Levene's Test of Equality of Error Variances<sup>a</sup>

Dependent Variable:tinggi tanaman (cm)

F	df1	df2	Sig.
	89	0	

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + perlakuan + ulangan

#### Tests of Between-Subjects Effects

Dependent Variable:tinggi tanaman (cm)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	14729.678 <sup>a</sup>	17	866.452	5.687	.000
Intercept	265364.100	1	265364.100	1.742E3	.000
perlakuan	14073.000	8	1759.125	11.547	.000
ulangan	656.678	9	72.964	.479	.884
Error	10969.222	72	152.350		
Total	291063.000	90			
Corrected Total	25698.900	89			

a. R Squared = ,573 (Adjusted R Squared = ,472)

## 2. Uji ANOVA dan Tukey HSD Jumlah Daun Tanaman

### Between-Subjects Factors

	Value Label	N
perlakuan	1 S0P0	10
	2 S0P12.5	10
	3 S0P25	10
	4 S12.5P0	10
	5 S12.5P12.5	10
	6 S12.5P25	10
	7 S25P0	10
	8 S25P12.5	10
	9 S25P25	10
ulangan	1 ulangan 1	9
	2 ulangan 2	9
	3 ulangan 3	9
	4 ulangan 4	9
	5 ulangan 5	9
	6 ulangan 6	9
	7 ulangan 7	9
	8 ulangan 8	9
	9 ulangan 9	9
	10 ulangan 10	9

### daun

	perlakuan	N	Subset
			1
Tukey HSD <sup>a</sup>	S25P25	10	1.7510E2
	S0P12.5	10	1.9330E2
	S25P12.5	10	1.9580E2
	S12.5P12.5	10	2.0200E2
	S12.5P0	10	2.0490E2
	S25P0	10	2.0590E2
	S0P25	10	2.0860E2
	S12.5P25	10	2.1660E2
	S0P0	10	2.4100E2
	Sig.		

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 2723,628.

a. Uses Harmonic Mean Sample Size = 10,000.

### Levene's Test of Equality of Error Variances<sup>a</sup>

Dependent Variable:daun

F	df1	df2	Sig.
.	89	0	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + perlakuan + ulangan

### Tests of Between-Subjects Effects

Dependent Variable:daun

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	80805.156 <sup>a</sup>	17	4753.244	1.745	.054
Intercept	3774873.600	1	3774873.600	1.386E3	.000
perlakuan	25685.200	8	3210.650	1.179	.324
ulangan	55119.956	9	6124.440	2.249	.028
Error	196101.244	72	2723.628		
Total	4051780.000	90			
Corrected Total	276906.400	89			

a. R Squared = ,292 (Adjusted R Squared = ,125)

### 3.Uji ANOVA dan Tukey HSD Berat Umbi Tanaman

#### Tests of Between-Subjects Effects

Dependent Variable:total (gram)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	263636.833 <sup>a</sup>	17	15508.049	2.468	.004
Intercept	2555302.500	1	2555302.500	406.579	.000
perlakuan	134437.000	8	16804.625	2.674	.012
ulangan	129199.833	9	14355.537	2.284	.026
Error	452511.667	72	6284.884		
Total	3271451.000	90			
Corrected Total	716148.500	89			

a. R Squared = ,368 (Adjusted R Squared = ,219)

#### total (gram)

perlakuan	N	Subset	
		1	2
Tukey HSD <sup>a</sup> S0P0	10	1.0870E2	
S0P12.5	10	1.3290E2	1.3290E2
S0P25	10	1.4910E2	1.4910E2
S25P0	10	1.4990E2	1.4990E2
S25P12.5	10	1.6020E2	1.6020E2
S25P25	10	1.6130E2	1.6130E2
S12.5P0	10	2.0610E2	2.0610E2
S12.5P12.5	10	2.1550E2	2.1550E2
S12.5P25	10		2.3280E2
Sig.		.081	.128

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 6284,884.

a. Uses Harmonic Mean Sample Size = 10,000.

#### 4. Uji ANOVA dan Tukey HSD Kadar Klorofil Tanaman

Between-Subjects Factors			
		Value Label	N
perlakuan	1	S0P0	3
	2	S0P12.5	3
	3	S0P25	3
	4	S12.5P0	3
	5	S12.5P12.5	3
	6	S12.5P25	3
	7	S25P0	3
	8	S25P12.5	3
	9	S25P25	3
ulangan	1	ulangan 1	9
	2	ulangan 2	9
	3	ulangan 3	9

total (mg/g)				
	perlakuan	N	Subset	
			1	2
Tukey HSD <sup>a</sup>	S12.5P0	3	22.8367	
	S12.5P25	3	24.8900	
	S12.5P12.5	3	25.0433	25.0433
	S0P0	3	27.5667	27.5667
	S25P0	3	27.8600	27.8600
	S0P12.5	3	28.5467	28.5467
	S25P12.5	3	29.5333	29.5333
	S25P25	3	30.4933	30.4933
	S0P25	3		33.4667
	Sig.			.097

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 8,612.

#### Levene's Test of Equality of Error Variances<sup>a</sup>

Dependent Variable:total  
(mg/g)

F	df1	df2	Sig.
.	26	0	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + perlakuan + ulangan

#### Tests of Between-Subjects Effects

Dependent Variable:total (mg/g)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	252.630 <sup>a</sup>	10	25.263	2.934	.027
Intercept	20872.796	1	20872.796	2.424E3	.000
perlakuan	251.061	8	31.383	3.644	.013
ulangan	1.569	2	.785	.091	.913
Error	137.788	16	8.612		
Total	21263.214	27			
Corrected Total	390.418	26			

a. R Squared = ,647 (Adjusted R Squared = ,426)

5. Rerata tinggi tanaman kentang kultivar Granola umur 10 minggu hasil perlakuan sitokinin dan paklobutrazol.

Perlakuan	Sitokinin			Rerata
	0 ppm	12,5 ppm	25 ppm	
<b>0 ppm</b>	81,4 <sup>c</sup>	64,8 <sup>bc</sup>	64,9 <sup>bc</sup>	70,36
<b>12,5 ppm</b>	43,1 <sup>a</sup>	51,5 <sup>ab</sup>	42,7 <sup>a</sup>	45,76
<b>25 ppm</b>	49,5 <sup>ab</sup>	46,1 <sup>a</sup>	44,7 <sup>a</sup>	46,76
	58	54,13	50,76	+

Keterangan :

\*Angka yang diikuti huruf yang berbeda menunjukkan beda nyata menurut uji lanjutan Tukey HSD pada taraf signifikansi  $\alpha = 5\%$  (n=10). Tanda (+) menunjukkan adanya interaksi pengaruh perlakuan sitokinin dan paklobutrazol berdasarkan uji GLM (*Generalized Linear Model*).

6. Rerata jumlah daun tanaman kentang (*Solanum tuberosum* L.) umur 10 minggu hasil perlakuan sitokinin dan paklobutrazol.

Perlakuan	Sitokinin			Rerata
	0 ppm	12,5 ppm	25 ppm	
<b>0 ppm</b>	241 <sup>a</sup>	204,9 <sup>a</sup>	205,9 <sup>a</sup>	217,26
<b>12,5 ppm</b>	193,3 <sup>a</sup>	202 <sup>a</sup>	195,8 <sup>a</sup>	197,03
<b>25 ppm</b>	208,6 <sup>a</sup>	212,6 <sup>a</sup>	175,1 <sup>a</sup>	198,76
	214,3	206,5	192,26	-

Keterangan :

\*Angka yang diikuti huruf yang berbeda menunjukkan beda nyata menurut uji lanjutan Tukey HSD pada taraf signifikansi  $\alpha = 5\%$  (n=10). Tanda (-) menunjukkan tidak adanya interaksi pengaruh perlakuan sitokinin dan paklobutrazol berdasarkan uji GLM (*Generalized Linear Model*).

7. Rerata bobot umbi tanaman kentang (*Solanum tuberosum* L.) umur 10 minggu hasil perlakuan sitokinin dan paklobutrazol.

Perlakuan	Sitokinin			Rerata
	0 ppm	12,5 ppm	25 ppm	
<b>0 ppm</b>	108,7 <sup>a</sup>	206,1 <sup>ab</sup>	149,9 <sup>ab</sup>	154,9
<b>12,5 ppm</b>	132,9 <sup>a</sup>	195,5 <sup>ab</sup>	160,2 <sup>ab</sup>	162,86
<b>25 ppm</b>	149,1 <sup>ab</sup>	232,8 <sup>b</sup>	161,3 <sup>ab</sup>	181,06
	130,23	211,46	157,13	+

Keterangan :

\*Angka yang diikuti huruf yang berbeda menunjukkan beda nyata menurut uji lanjutan Tukey HSD pada taraf signifikansi  $\alpha = 5\%$  (n=10). Tanda (+) menunjukkan adanya interaksi pengaruh perlakuan sitokinin dan paklobutrazol berdasarkan uji GLM (*Generalized Linear Model*).

8. Rerata kadar klorofil tanaman kentang (*Solanum tuberosum* L.) umur 10 minggu hasil perlakuan sitokinin dan paklobutrazol.

Paklobutrazol	Sitokinin			Rerata
	0 ppm	12,5 ppm	25 ppm	
<b>0 ppm</b>	27,57 <sup>ab</sup>	22,84 <sup>a</sup>	27,86 <sup>ab</sup>	26,09
<b>12,5 ppm</b>	28,55 <sup>ab</sup>	25,04 <sup>ab</sup>	29,53 <sup>ab</sup>	27,70
<b>25 ppm</b>	33,47 <sup>b</sup>	24,89 <sup>a</sup>	30,49 <sup>ab</sup>	29,61
	29,86	24,25	29,29	+

Keterangan :

\*Angka yang diikuti huruf yang berbeda menunjukkan beda nyata menurut uji lanjutan Tukey HSD pada taraf signifikansi  $\alpha = 5\%$  (n=10). Tanda (+) menunjukkan adanya interaksi pengaruh perlakuan sitokinin dan paklobutrazol berdasarkan uji GLM (*Generalized Linear Model*).

9. Hasil estimasi tingkat ekspresi gen StBEL5 pada bagian daun tanaman kentang  
(*Solanum tuberosum* L.)

Perlakuan	Konsentrasi Ubiquitin	Konsentrasi StBEL5	Tingkat Ekspresi
<b>S0P0</b>	3045,722	33098,933	10,867351
<b>S0P12,5</b>	2913,043	36670,347	12,588330
<b>S0P25</b>	3136,904	38518,054	12,279003
<b>S12,5P0</b>	4125,611	33347,154	8,0829613
<b>S12,5P12,5</b>	4116,943	34228,690	8,3141035
<b>S12,5P25</b>	3437,853	39177,054	11,395790
<b>S25P0</b>	3350,665	39104,983	11,670813
<b>S25P12,5</b>	3248,148	32422,539	9,9818540
<b>S25P25</b>	3979,328	32395,024	8,1408278

10. Hasil estimasi tingkat ekspresi gen StBEL5 pada batang tanaman kentang  
(*Solanum tuberosum* L.)

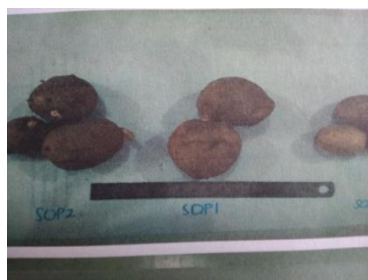
Perlakuan	Konsentrasi Ubiquitin	Konsentrasi StBEL5	Tingkat Ekspresi
<b>S0P0</b>	2173,534	37265,853	17,145282
<b>S0P12,5</b>	1893,779	35618,154	19,807978
<b>S0P25</b>	1770,603	39282,489	22,18594
<b>S12,5P0</b>	1962,854	42721,075	21,764775
<b>S12,5P12,5</b>	1839,401	35301,811	19,192015
<b>S12,5P25</b>	1660,566	40894,882	24,627074
<b>S25P0</b>	2207,854	41682,823	18,879338
<b>S25P12,5</b>	2327,174	35220,054	15,134259
<b>S25P25</b>	1914,259	38960,317	20,352688

## 11. Foto-Foto Penelitian

### a. Pengujian kadar klorofil



### b. Perbandingan hasil umbi antar perlakuan



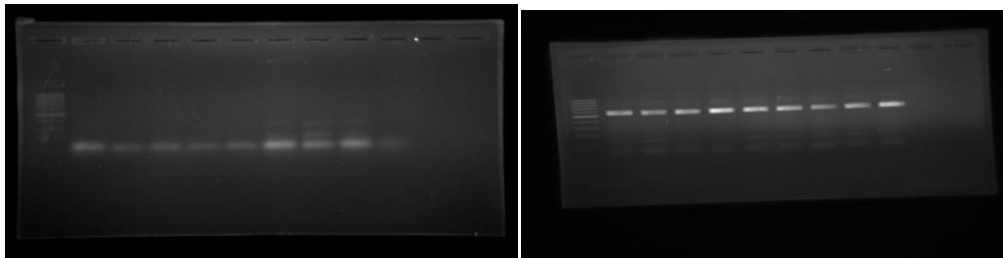
### c. Foto Umbi Saat Panen



#### d. Foto Penanaman Tanaman Kentang



#### a. Hasil PCR



#### b. Analisa software Image J

