

BAB V

KESIMPULAN DAN SARAN

A. Kesimpulan

Kesimpulan yang didapat dari penelitian yang telah dilakukan yaitu sebagai berikut:

Pertama, krim F1, F2, F3, dan F4 memenuhi syarat uji mutu fisik organoleptis, pH, homogenitas, viskositas, dan daya sebar. Hasil uji stabilitas krim F1, F2, F3, dan F4 memenuhi syarat organoleptis dan pH.

Kedua, krim ekstrak daun kersen memiliki IIPR (indeks iritasi primer) sebesar 0,33 dan $0,67 \leq 8,00$ (krim sangat sedikit mengiritasi) dan IIO (indeks iritasi okuler) sebesar $0,00 \leq 8,00$ (krim tidak mengiritasi) sehingga krim ekstrak daun kersen aman digunakan sebagai produk kosmetik.

Ketiga, sediaan krim ekstrak daun kersen memberikan efek *anti-aging* pada hewan uji yang diinduksi sinar UV-A dengan meningkatkan secara signifikan parameter persen kolagen, persen kelembaban, dan persen elastisitas yang diukur menggunakan alat *Skin Analyzer* bila ditinjau dari perubahan nilai parameter yang diukur sebelum dan sesudah dioles krim.

Keempat, sediaan krim ekstrak daun kersen dengan konsentrasi 3% memberikan efek *anti-aging* paling efektif dibandingkan krim dengan konsentrasi 6% dan 9% pada hewan uji yang diinduksi sinar UV-A.

B. Saran

Saran yang dapat disusun berdasarkan penelitian yang telah dilakukan adalah sebagai berikut:

Pertama, diharapkan untuk peneliti selanjutnya agar meneliti tentang ekstrak daun kersen yang dibuat kedalam sediaan lainnya dengan standarisasi pengujian lainnya.

Kedua, dapat melakukan formulasi ekstrak daun kersen dalam bentuk sediaan topikal lain yang lebih efektif sebagai krim *anti-aging*.

Ketiga, dapat melakukan pengujian stabilitas fisik sediaan krim dengan lebih cermat

DAFTAR PUSTAKA

- Achmad, S.A, 1986. *Kimia Organik Bahan Alam*. Universitas Terbuka. Jakarta.
- Alatas, Z dan Lusiyanti Y. 2001. *Efek Kesehatan Radiasi Non Pengionan pada Manusia* [SEMNAS]. Pusat Penelitian dan Pengembangan Keselamatan Radiasi dan Biomedika Nuklir-BATAN: Jakarta. hlm. 1-8.
- Alfred, M., James, S., Arthur, C. (1993). 1. *Farmasi Fisik, Dasar-dasar Kimia Fisik dalam Ilmu Farmasetik*. Jilid III. (Yoshita). Jakarta: UI Press.
- Akhlaghi M. and Brian Bandy. 2009. *Mechanisms of flavonoid protection against myocardial ischemia–reperfusion injury*. Journal of Molecular and Cellular Cardiology. 46 : 309–17.
- Alkhakim, F. H., M. N. Huda, G. D. Fitri, D. Ambarwati, H. Tistiana. 2013. Pengaruh Ekstrak Daun Kersen terhadap Daya Tetas dan Mortalitas Telur Itik Hibrida. Malang: Fakultas Peternakan Universitas Brawijaya. *Jurnal Ilmu-Ilmu Peternakan*. 26 (2): 8 – 13.
- Andareto, Obi. 2015. *Apotek herbal di sekitar anda: buku yang memuat jenis daun herbal*. Jakarta: Pustaka Ilmu Semesta.
- Anief, M. 1997. *Formulasi Obat Topikal Dengan Dasar Penyakit Kulit*. Yogyakarta: Gajah Mada University Press.
- Ansel, H.C. 1989. *Pengantar Bentuk Sediaan Farmasi*. Diterjemahkan Oleh Farida Ibrahim, Asmanizar, Lis Aisyah, Edisi keempat. Jakarta. Universitas Indonesia Press.
- Ansel, H. C. 2008. *Pengantar Bentuk Sediaan Farmasi*, ed IV, Alih bahasa Ibrahim, F. Jakarta : UI Press.
- Arisca, H. 2018. Uji Aktivitas Antioksidan Ekstrak Angkak dan Formulasinya dalam Sediaan Krim yang Diuji Penetrasi dan Keamanan pada Kelinci. [Skripsi]. Surakarta: Fakultas Farmasi. Universitas Setia Budi.
- Aswal, A., Kalra, M., dan Rout A. 2013. *Preparation and evaluation of polyherbal cosmetic cream*. *Der pharmacis letter*.
- Barel, AO. 2001. General concepts of skin irritancy and anti-irritant products. Di Dalam: Paye, M., A.O. Barel dan H.I. Mailbach, editor. *HandBook of Cosmetic Science and Technology*. Marcel Dekker Inc, New York.
- Barel A.O., Paye M. and Maibach H.I., 2009, *Handbook of Cosmetic Science and Technology*, 3rd Edition., Informa Healthcare USA, Inc., New York.

- Budiawan, A. 2018. Uji Aktivitas Antikerut Krim Mikroemulsi Dan Nanoemulsi Ekstrak Angkak (*Red Yeast Rice*) Secara *in vitro* Dan *in vivo*. [Tesis]. Surakarta: Fakultas Farmasi. Universitas Setia Budi.
- Chen, L. Hu, JY. Wang, SQ. 2012. The Role of Antioxidants in Photoprotection: A Critical Review. *Journal of the American Academy of Dermatology* 67 (5). Elsevier Inc: 1013–24. doi:10.1016/j.jaad.2012.02.009.
- Damayanti. 2017. *Penuaan Kulit dan Perawatan Kulit Dasar pada Usia Lanjut*. Telaah kepustakaan Fakultas Kedokteran Universitas Airlangga. 29(1) : 74-75.
- De Gruijl, F,R, 2000. *Health Effects from Solar UV Radiation*. 72(3-4): 177-196.
- Departemen Kesehatan RI. 1979. *Farmakope Indonesia*. Edisi III. Ditjen POM. Jakarta.
- Departemen Kesehatan RI. 1995. *Farmakope Indonesia*. Edisi IV. Ditjen POM. Jakarta.
- Departemen Kesehatan RI. 2000. *Farmakope Indonesia*. Edisi IV. Jakarta: Departemen Kesehatan Republik Indonesia.
- Departemen Kesehatan Republik Indonesia. 2008. *Farmakope Herbal Indonesia Edisi 1*. Jakarta: Departemen Kesehatan Republik Indonesia.
- Departemen Kesehatan Republik Indonesia. 2013. *Suplemen III Farmakope Herbal Indonesia Edisi 1*. Jakarta: Departemen Kesehatan Republik Indonesia.
- Dewi, E. T. 2013. Fraksinasi Dan Identifikasi Senyawa Antioksidan Pada Ekstrak Etanol Daun Kersen (*Muntingia Calabura* L.) Secara Kolom Kromatografi. *Skripsi*. Fakultas Farmasi. Universitas Katolik Widya Mandala : Surabaya.
- Dipahayu D., dkk. 2014. Formulasi Krim Antioksidan Ekstrak Etanol Daun Ubi Jalar Ungu (*Ipomoea batatas* (L.) Lamk) Sebagai *Anti Aging*. Artikel. Fakultas Farmasi. Surabaya : Universitas Airlangga.
- Ditjen POM, 1986. *Sediaan Galenik*. Direktorat Jenderal Pengawasan Obat dan Makanan. Jakarta.
- Dirjen POM, 1979. *Farmakope Indonesia Edisi III*. Departemen Kesehatan Republik Indonesia. Jakarta: Departemen Kesehatan Republik Indonesia.

- Draize, T.H., G. Woodland, dan H.O. Calvey. 1944. Methods for the study of irritation and toxicity of substances applied topically to the skin and mucous membranes. *J Pharmacol Exp Ther* 82:377-390.
- Duraivel, S. Shaheda, A. Basha, R. Pasha, E. Jilani. 2014. Formulation and Evaluation of Antiwrinkle Activity of Cream and Nano Emulsion of *Moringa oleifera* Seed Oil. *Journal of Pharmacy and Biological Sciences* 9 (4): 58–73.
- Fatchiyah, 2013. “Laik Ethic Penelitian dengan Hewan Coba”(makalah). Malang: Brawijaya
- Firdayani *et al.* 2015. Ekstraksi Senyawa Bioaktif Sebagai Antioksidan Alami *Spirulina platensis* Segar Dengan Pelarut Yang Berbeda. Fakultas Perikanan dan Ilmu Kelautan. Semarang : Universitas Diponegoro.
- Gozali, et al. 2009. Formulasi Krim Pelembab Wajah yang Menggunakan Tabir Surya Nanopartikel Zink Oksida Salut Silikon. *Farmaka*. 07. Hal 37-47.
- Haeria, 2013. Penetapan Kadar Flavonoid Total Dan Uji Daya Antioksidan Ekstrak Etanol Daun Ungu (*Graptophyllum pictum* L.) Griff). Jurusan Farmasi. Makasar : FIK UIN Alaudin.
- Harbone, J.B. 1987. *Metode Fitokimia: Penuntun Cara Modern Menganalisis Tumbuhan*. Terjemahan oleh Padmawinata K dan Soedira I. 1996. Terbitan kedua. Bandung: ITB.
- Harun DSN. 2014. Formulasi dan Uji Aktivitas Antioksidan Krim *Anti-Aging* Ekstrak Etanol 50% Kulit Buah Manggis (*Garcinia magostana* L.) dengan Metode DPPH (*1,1-Diphenyl-2-Picril Hydrazil*). Fakultas Kedokteran dan Ilmu Kesehatan. Jakarta : UIN Syarif Hidayatullah.
- Holistic Health Solution. (2011). *Khasiat Fantastis Kulit Manggis*. Grasindo, Jakarta.
- Hustamin, R., 2007. *Panduan Memelihara Kelinci Hias*. Argo Media Pustaka. Jakarta.
- Ida N, Noer SF. Uji stabilitas fisik gel ekstrak lidah buaya (*Aloe vera* L.). *Majalah Farmasi dan Farmakologi*, 2012;6(2):79-84.
- Indriani,Susi. 2006. Aktivitas Antioksidan Ekstrak Daun Jambu Biji (*Psidium guajava* L.) J.ll. *Pert.Indon*. Vol. 11(1).
- Jitoe, A., Masuda, T., Tengah, I.G.P., Suprpta, D.N., Gara, I.W. dan Nakatani, N. 1992. *Antioxidant Activity of Tropical Ginger Extractan Analysis of The Contained Curcuminoids*. *J Agric Food Chem*. 40, Pp.1337-40.

- Junaidi. (2015). *Memahami Skala-Skala Pengukuran*. Fakultas Ekonomi dan Bisnis Universitas Jambi.Jambi.
- Keith, R. 2010. *Rattus Norvegicus*. Available from : http://genomics.senescence.info/species/entry.php?species=Rattus_norvegicus. Accessed November 8, 2018.
- Kibbe, A.H. *Hand book pharmaceutical card excipients 5 th*. Edition pensylvania university of pharmacy. 2000.
- Kim, Y. and Kim, M. G. 2016. HPLC-UV method for the simultaneous determinations of ascorbic acid and dehydroascorbic acid in human plasma. Available from : <https://synapse.koreamed.org/Synapse/Data/PDFData/1179TCP/tcp-24-37.pdf>. Accesed November 26, 2018.
- Komatsu T, Sasaki S, Manabe Y, Hirata T, Sugawara T. 2017. Preventive effect of dietary astaxanthin on UVA-induced skin photoaging in hairless mice. *PLoS ONE* 12(2): e0171178. <https://doi.org/10.1371/journal.pone.0171178> [10 Juni 2019]
- Kristanti, A. N., Nanik, S. A., Mulyadi, T., Bambang, K. 2018. *Buku Ajar Fitokimia*. Surabaya: Universitas Airlangga.
- Kuntorini, dkk. 2013. *Struktur Anatomi Dan Uji Aktivitas Antioksidan Ekstrak Metanol Daun Kersen (Muntingia calabura)*. Prosiding Semirata FMIPA Universitas Lampung. p.291.
- Lachman, L., Lieberman, H.A, Kanig, .L. 1994. *Teori dan praktek farmasi industri II*. Cetakan ke-1. UI press. Jakarta.
- Lee SE, Hwang HJ, Ha JS, Jeong HS, and Kim JH 2003. *Screening of medisinal plant extracts for antioxidant activity*. Life Sci. 73: 167-179.
- Lie, J., dkk. 2012. *Phenolic Compound and Antioxidan Activity of Bulb Extract of Six Lilium Species Native to China*. Molecules Hal : 9362.
- Lu FC. Lu's Basic Toxicology: fundamentals, target organs and risk assessment, 4th ed. Taylor & Francis, New Fetter Lane, London. 2002.
- Lyons NM & Brien O. 2002. Modulatory Effects of An Algal Extract Containing Astaxanthin on UVAIrradiated Cells in Culture. *J. Dermatol. Sci.* 30.

- Madhavi, D. L., Despande, S. S., dan Salunkhe, D. K. 1996, *Food Antioxidants Technological Toxicological and Health Perspective*. Marcell Dekker Inc.:New York.
- Marhaeniyanto, Eko, Sugeng Rusmiwari dan Sri Susanti. 2015. "Pemanfaatan Daun Kelor Untuk Meningkatkan Produksi Ternak Kelinci New Zealandwhite". *Buana Sains*. Vol 15. No 2: 119-126.
- Markham, K.R. 1988. *Cara Mengidentifikasi Flavonoid*. Diterjemahkan oleh Kosasih Padmawinata. Bandung: Penerbit ITB.
- Meydani et al. 1995. Antioxidants and Immune Response in Aged Persons : Overview of Present Evidence. *American Journal of Clinical Nutrition*. 62 : 1462 -1476.
- Michael and Ash, I., 1977, a *Formulary of Cosmetic Preparation*, Chemical Publishing Co., New York.
- More B.H., Sakharwade S.N., Tembhurne S. V. and Sakarkar D.M., 2013, Evaluation of Sunscreen activity of Cream containing Leaves Extract of *Butea monosperma* for Topical application, *International Journal of Research in Cosmetic Science*, 3 (1), 1–6.
- Muliyawan, D. dan Suriana, 2013. *A-Z Tentang Kosmetik*. Jakarta: PT Elex Media Komputindo. hal. 138-289.
- Murray R. K., Granner D.K., Rodwell V.W., 2009. *Biokimia Harper*, (Andri Hartono). Edisi 27. Penerbit Buku Kedokteran, EGC. Jakarta.
- Murti, dkk. 2016. Pengaruh Ekstrak Daun Kersen (*Muntingia calabura*) Terhadap Gambaran Mikroskopis Hepar Tikus Wistar Jantan Yang Diinduksi Etanol Dan Soft Drink. *Jurnal Kedokteran Diponegoro*. 5(4): 874.
- Narayanaswamy N. and Duraisamy A., 2011, Tyrosinase Inhibition And Anti-Oxidant Properties Of *Muntingia calabura* Extracts: *In Vitro* Studies, *International Journal of Pharma and Bio Sciences*, 2 (1), 294-303.
- Nasri, Hamid, Mahmoud Rafieian-Kopaei. 2013. Tubular Kidney Protection by Antioxidants. *Iran J Public Health*.
- Nurhasanah, N. 2012. Isolasi Senyawa Antioksidan Ekstrak Metanol Daun Kersen (*Muntingia calabura* Linn.). *Skripsi*. Fakultas Matematika Dan Ilmu Pengetahuan Alam. Universitas Jenderal Achmad Yani : Cimahi.
- Pangkahila, W. 2007. *Anti Aging Medicine*. First edition. Jakarta: Kompas. p.11-52.

- Park HM & Hwang E. 2011. Royal Jelly Protects Againsts Ultraviolet Binduced Photoaging in Human Skin Fibroblasts Via Enhancing Collagen Production. *J.Med.Food* 1-9.
- Perayil, J., Menon, K., Kurup, S., 2015, Influence of Vitamin D dan Calcium Supplementation in the Management of Periodontitis, *Journal of Clinical and Diagnostic Research*.
- Poelengan M et al. 2007. Uji Daya Antibakteri Ekstrak Etanol Batang Bungur (*Lagerstromenia speciose* Pers) Terhadap *Staphylococcus aureus* dan *E.coli* Secara In Vitro. Laporan penelitian. Fakultas Peternakan. Institut Pertanian Bogor.
- Prakash, A. 2001. *Antioxidant Activity Medallion Laboratories : Analithycal Progress*. A publication of Medallion Labs : 1-4.
- Purwonegoro. (1997). *Therapy herbal back to nature*. Jakarta : Pustaka Media.
- Rahman, M., Fakir, S.A., dan Rahman, M. 2010. Fruit Growth of China Cherry (*Muntingia calabura*). *Jurnal Botany Research International*. 3(2) : 56-60.
- Rahmat, H. 2009. Identifikasi Senyawa Flavonoid Pada Sayuran Indigenous Jawa Barat. *Skripsi*. Fakultas Teknologi Pertanian. Institut Pertanian Bogor: Bogor.
- Rieger, M. M.. 2000. *Harry's Cosmeticologi 8th Edition*. New York : Chemical Publishing Co. Inc.
- Robinson, T. 1995. *Kandungan Senyawa Organik Tumbuhan Tinggi*. Terjemahan oleh Kokasih Padmawinata. Bandung: Penerbit ITB.
- Rohmatussolihat. (2009). Antioksidan, Penyelamat Sel-Sel Tubuh Manusia. *BioTrends*. Vol.4. No.1.
- Rowe, R.C., Sheskey, P.J., and Quin, S.C., 2009, *Handbook of Pharmaceutical Excipient*, 6th Edition, London : Pharmaceutical Press.
- Sadikin, 2002. *Biokimia Enzim*. Cetakan I. Penerbit Widya Medika. Jakarta.
- Sami F. J., Nur S., Ramli N., Sutrisno B. 2017. Uji Aktivitas Antioksidan Daun Kersen (*Muntingia calabura* L.) Dengan Metode Dpph (1,1-Difenil-2-Pikrilhidrazil) dan FRAP (*Ferric Reducing Antioxi dan Power*). Makassar : Sekolah Tinggi Ilmu Farmasi. 09 (02) : Hal 106-111.

- Sani EP, Lukmayani Y. 2010. Sabun Transparan Berbahan Dasar Minyak Jelantah serta Hasil Uji Iritasinya pada Kelinci. [Skripsi]. Bandung. Jurusan Fakultas Farmasi, Universitas Islam Bandung.
- Selamet RN, Sugito, Dasrul. The effect Of tomato extract (*Lycopersicon esculentum*) on the formation of athero-sclerosis in white rats (*Rattus norvegicus*) male. J Natural. 2013; 2(13):5.
- Sindhe M, Aruna, Yadav D Bodke, Chandrashekar A. 2014. Antioxidant and In Vivo Anti-hyperglycemic Activity of Muntingia calabura Leaves Extracts. Der Pharmacia Lettre.
- Sirois, M. 2005. *Laboratory Animal Medicine: Principles and Procedures*. Mosby, Inc. United States of America.
- Sloane, Ethel. 2004. *Anatomi dan fisiologi untuk pemula*. Jakarta : Penerbit Buku Kedokteran EGC.
- Sofia, D. 2003. *Antioksidan dan Radikal Bebas*. <http://www.chemistry/?sect=artikel&ext=81>.
- Suardi, D., Ridwan, I. 2009. Beras Hitam, Pangan Berkhasiat. Available from : <http://pustaka.litbang.deptan.go.id/publikasi/wr312095.pdf>. Accessed November 26, 2018.
- Supari, F., 1996, Radikal Bebas dan Patofisiologi Beberapa Penyakit Prosiding Senyawa Radikal dan Sistem Pangan: Reaksi Biomolekuler, Dampak Terhadap Kesehatan, dan Penangkalan Kerjasama Pusat Studi Pangan Dan Gizi Institut Pertanian Bogor Dan Kedutaan Besar Prancis, Jakarta.
- Syaifuddin. 2009. *Anatomi Tubuh Manusia*. Jakarta: Salemba Medica.
- Syamsuni. (2006). *Farmasetika Dasar dan Hitungan Farmasi*. Penerbit Buku Kedokteran EGC, Jakarta.
- Tamu, F. 2017. Formulasi Dan Uji Efektivitas Antioksidan Krim Ekstrak Etanol Daun Kersen (*Muntingia calabura* L) Dengan Metode DPPH. *Skripsi*. Fakultas Kedokteran dan Ilmu Kesehatan. Universitas Islam Negeri Alauddin : Makassar.
- Telang, P.S. 2013. Vitamin C in Dermatology. Available from : <http://www.ncbi.nlm.gov/pmc/articles/PMC3673383>. Accessed November 26, 2018.
- Tjitrosoepomo, G. 1991. *Taksonomi Tumbuhan (Spermatophyta)*. Gadjah Mada University Press. Yogyakarta.

- Tristantini, D., Alifah I., Bhayangkara T.P., dan Jason G.J. 2016. *Pengujian Aktivitas Antioksidan Menggunakan Metode DPPH pada Daun Tnjung (Mimusops elegi L)*. Program Studi Teknik Kimia dan Teknologi Bioproses. Universitas Indonesia, Depok : Jawa Barat. ISSN 1693-4393.
- Vani, T.A. 2013. Pemberian krim Ekstrak Umbi Ubi Jalar Ungu (*Ipomea batatas* L) Mencegah Penurunan Jumlah Kolagen Kulit Tikus Putih Galur Wistar (*Rattus norvegicus*) Yang Dipapar Sinar Ultraviolet B. (Thesis). Denpasar : Universitas Udayana.
- Voigt, R. 1995. *Buku Pelajaran Teknologi Farmasi*. Diterjemahkan oleh Soendani N. S. Yogyakarta : UGM Press.
- Waji, R.A, A. Sugrani. 2009. Flavonoid (Quercetin). [Skripsi]. Makasar: Fakultas Matematika dan Ilmu Pengetahuan Alam. Universitas Hasanuddin.
- Wang, H.M.D., C.C. Chen, P. Huynh, and J.S. Chang. 2014. Exploring the potential of using algae in cosmetics. *Bioresource Technolgy*, 12(1): 1-28.
- Wasitaatmadja, S.M. 1997. *Penuntun Ilmu Kosmetik Medik*. Jakarta: UI Press.
- Whendrato, I. dan I. M. Madyana, 1983. *Beternak Kelinci Secara Populer*. Eka Offset. Semarang.
- Widodo, H. 2013. *Ilmu Meracik Obat Untuk Apoteker*. D-Medika : Yogyakarta.
- Wilkinson, J.B and Moore, R.J. 1982. *Harry's Cosmeticology Seventh Edition*, Chemical Publishing, New York.
- Winarsi H. 2007. *Antioksidan Alami dan Radikal Bebas*. Kanisius : Yogyakarta.
- Windarwati S. 2011. Pemanfaatan Fraksi Aktif Ekstrak Tanaman Jarak Pagar (*Jatropha curcas* Linn) sebagai Zat Antimikroba dan Antioksidan dalam Sediaan Kosmetik. [Tesis]. Bogor. Sekolah Pascasarjana. IPB.
- World Health Organization(WHO). 2009. *Health Effect from Radiation UV*.
- Young, Anne, 2002v, *Practical Cosmetic Science*, 39-40, Mills and Boon Limited, London.
- Zussman, J., Ahdout, J. 2010. The Role of Vitamins in Skin Care Products. Available at : <http://www.prnewswire.com/90614309.html>. Accessed November 26, 2018.

L

A

M

P

I

R

A

N

Lampiran 1. Hasil Izin kode etik kehewan



HEALTH RESEARCH ETHICS COMMITTEE
KOMISI ETIK PENELITIAN KESEHATAN

Dr. Moewardi General Hospital
RSUD Dr. Moewardi

School of Medicine Sebelas Maret University
Fakultas Kedokteran Universitas Sebelas Maret



ETHICAL CLEARANCE
KELAIKAN ETIK

Nomor : 458 / III / HREC / 2019

The Health Research Ethics Committee Dr. Moewardi General Hospital / School of Medicine Sebelas
Komisi Etik Penelitian Kesehatan RSUD Dr. Moewardi / Fakultas Kedokteran Universitas Sebelas Maret

Maret University Of Surakarta, after reviewing the proposal design, herewith to certify
Surakarta, setelah menilai rancangan penelitian yang diusulkan, dengan ini menyatakan

That the research proposal with topic :
Bahwa usulan penelitian dengan judul

**UJI AKTIVITAS ANTI AGING KRM EKSTRAK ETANOL DAUN KERSEN PADA KULIT PUNGGUNG KELINCI
NEW ZEALAND YANG DIAPAPAR SINAR UVA**

Principal investigator : Paula Intan Permatasari
Peneliti Utama : 21154415A

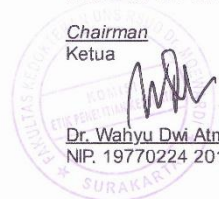
Location of research :
Lokasi Tempat Penelitian :

Is ethically approved
Dinyatakan layak etik

Issued on : 29 Mar 2019

Chairman
Ketua

Dr. Wahyu Dwi Atmoko, SpF
NIP. 19770224 201001 1 004



Lampiran 2. Surat Keterangan Determinasi Tumbuhan

No : 334/DET/UPT-LAB/12/I/2019
Hal : Surat Keterangan Determinasi Tumbuhan

Menerangkan bahwa :

Nama : Paula Intan Permatasari
NIM : 21154415 A
Fakultas : Farmasi Universitas Setia Budi

Telah mendeterminasikan tumbuhan : **Kersen (*Muntingia calabura* L.)**

Determinasi berdasarkan Steenis: FLORA

1b – 2b – 3b – 4b – 6b – 7b – 9b – 10b – 11b – 12b – 13b – 15a. Golongan 8 – 109b – 119b – 120b – 128b – 129b – 135b – 136b – 139b – 140b – 142b – 143b – 146b – 154b – 155b – 156b – 162b – 163b – 167b – 169b – 171b – 177b – 179a – 180b – 182b – 183b – 184b – 185b – 186b. Familia 74. Tiliaceae. 1a. 1. *Muntingia*. *Muntingia calabura* L.

Deskripsi :

Habitus : Pohon kecil, menahun, tinggi 2 – 10 m.

Akar : Sistem akar tunggang.

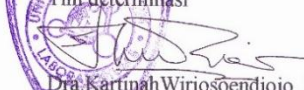
Batang : Berkayu, coklat, bulat, percabangan simpodial, tegak, ranting diselubungi rambut biasa yang halus dan oleh rambut kelenjar.

Daun : Tunggal, berseling, helaian daun tidak sama sisi, bulat telur sampai lanset, panjang 9,1 – 10,1 cm, lebar 4 – 3,7 cm, ujung runcing, tepi bergerigi, permukaan bawah berambut rapat, tangkai pendek, berambut seperti wol rapat, tulang daun menyirip, hijau. Dari tiap pasang daun pelindung 1 rudimenter dan 1 bentuk benang – bentuk paku, panjang 0,5 cm.

Bunga : Bunga 1-3 menjadi satu di ketiak daun, berbilangan 5, berkelamin 2. Kelopak berbagi dalam, taju meruncing menjadi bentuk benang, berambut halus. Daun mahkota putih, tepi rata, bulat telur terbalik, gundul, panjang lk 6 mm. Tonjolan dasar bunga bentuk cawan. Benangsari banyak, terutama pada tonjolan dasar bunga. Bakal buah bertangkai pendek, gundul, beruang 5 – 6. Kepala sari hampir duduk, berlekuk 5 – 6. Tonjolan dasar bunga bentuk cawan. Benangsari banyak terutama pada tonjolan dasar bunga. Bakal buah bertangkai pendek, gundul, beruang 5 – 6. Kepala putik hampir duduk, berlekuk 5 – 6.

Buah : Buni dimahkotai dengan tangkai putik yang tetap, waktu muda hijau, setelah masak merah, panjang 1 cm.

Pustaka : Steenis C.G.G.J., Bloembergen S. Eyma P.J. (1978): *FLORA*, PT Pradnya Paramita. Jl. Kebon Sirih 46. Jakarta Pusat, 1978.

Surakarta, 12 Januari 2019
Tim determinasi

Dra. Kartinah Wirjosandjojo, SU.

"ABIMANYU FARM"

✓ Mencit putih jantan ✓ Tikus Wistar ✓ Swis Webster ✓ Cacing
✓ Mencit Balb/C ✓ Kelinci New Zealand

Ngampon RT 04 / RW 04, Mojosongo Kec. Jebres Surakarta. Phone 085 629 994 33 / Lab USB Ska

Yang bertanda tangan di bawah ini:

Nama : Sigit Pramono

Selaku pengelola Abimanyu Farm, menerangkan bahwa hewan uji yang digunakan untuk penelitian, oleh:

Nama : Paula Intan Permatasari

Nim : 21154415 A

Institusi : Universitas Setia Budi

Merupakan hewan uji dengan spesifikasi sebagai berikut:

Jenis hewan : Kelinci New Zealand

Umur : 2-3 bulan

Jumlah : 5 ekor

Jenis kelamin : Jantan

Keterangan : Sehat

Asal-usul : Unit Pengembangan Hewan Percobaan Boyolali

Yang pengembangan dan pengelolaannya disesuaikan standar baku penelitian. Demikian surat keterangan ini dibuat untuk digunakan sebagaimana mestinya.

Surakarta, 24 Juni 2019

Hormat kami



Sigit Pramono

"ABIMANYU FARM"

Lampiran 4. Gambar penelitian

A. Gambar Alat, Bahan, dan Proses Penelitian

	Daun kersen kering
	Serbuk kersen
	Alat maserasi



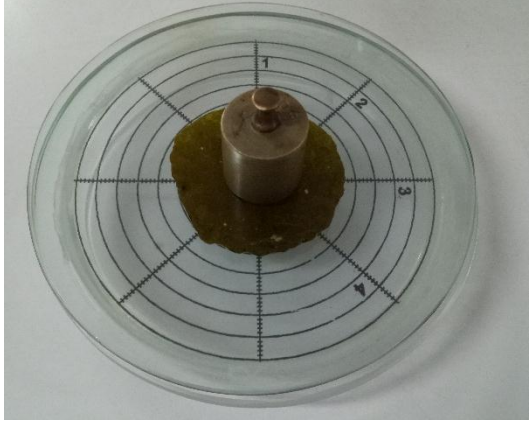
Evaporator



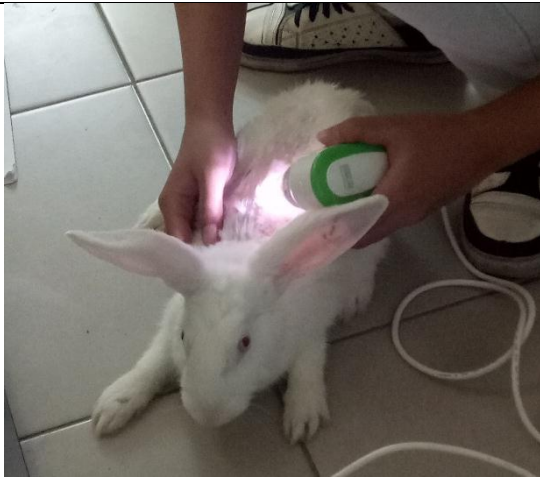
Moisture balance



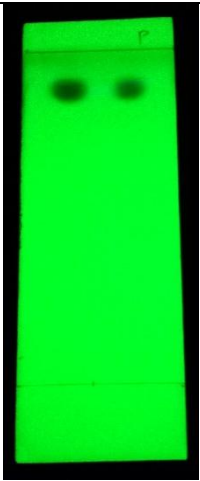
Vicometer brookfield

		Alat daya sebar
		pH meter
		Krim ekstrak daun kersen (Formula 1, Formula 2, Formula 3, Basis)
		Kontrol positif

	Gambar alat <i>Skin Analyzer</i> EH900U
	Gambar proses induksi kerutan menggunakan sinar UV-A pada hewan uji kelinci
	Gambar proses mencukur bulu kelinci

	Gambar proses pengukuran parameter kerutan menggunakan alat <i>Skin Analyzer</i>
---	---

B. Kromatografi Lapis Tipis Ekstrak Kersen

Gambar	Keterangan
	Peredaman bercak pada UV 254 nm Rf 1 : 0,7 dan Rf 2: 0,7 Senyawa flavonoid : +
	Bercak setelah disemprot dengan penampak bercak AlCl_3 Rf 1 : 0,7 dan Rf 2: 0,7 Senyawa flavonoid : +

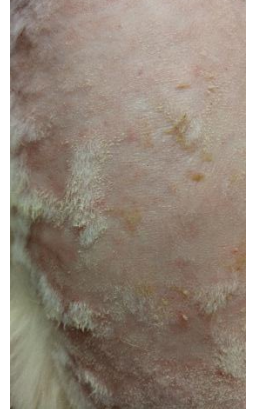
	Flouresensi hijau pada UV 366 nm Rf 1 : 0,7 dan Rf 2: 0,7 Senyawa flavonoid : +
---	--

Bercak 1 : ekstrak kersen

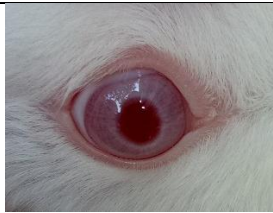
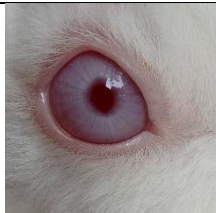
Bercak 2 : pembanding kuersetin

Fase gerak: etil asetat : *n*-butanol : asam format (7:1:2)

C. Gambar Uji Keamanan

Kelinci	Uji iritasi primer		
	24	48	72
Kontrol Negatif			
Formula 1			

Formula 2			
Formula 3			

Kelinci	Uji iritasi okuler		
	24	48	72
Kontrol Negatif			
Formula 1			
Formula 2			

Formula
3



Lampiran 5. Perhitungan rendemen berat daun kersen menjadi serbuk daun kersen

Diketahui :

- Bobot daun kersen segar = 8 kg
- Bobot daun kersen kering = 2 kg
- Bobot serbuk daun kersen = 1 kg

Perhitungan % rendemen

$$\% \text{ rendemen} = \frac{\text{bobot serbuk daun kersen}}{\text{bobot daun kersen kering}} \times 100\%$$

$$\% \text{ rendemen} = \frac{1}{2} \times 100\%$$

$$\% \text{ rendemen} = 50\%$$

Lampiran 6. Perhitungan rendemen ekstrak

Diketahui :

- Bobot ekstrak = 224,252 gram
- Bobot serbuk daun kersen = 1000 gram

Perhitungan % rendemen

$$\% \text{ rendemen} = \frac{\text{bobot ekstrak kental}}{\text{bobot simplisia}} \times 100\%$$

$$\% \text{ rendemen} = \frac{224,252}{1000} \times 100\%$$

$$\% \text{ rendemen} = 22,42 \%$$

Lampiran 7. Hasil penetapan susut pengeringan serbuk dan ekstrak daun kersen

	Berat (g)	Susut pengeringan (%)	Kandungan (%)
Serbuk	2,07	9,7	≤10
	2,03	8,9	
	2,03	10,8	
	Rata-rata ± SD	9,8 ± 0,95	
Ekstrak	2,06	20,0	≤10
	2,03	19,8	
	2,14	20,1	
	Rata-rata ± SD	19,96 ± 0,15	

Ekstrak daun kersen tidak memenuhi persyaratan susut pengeringan.

Lampiran 8. Hasil uji mutu fisik krim

1. Organoleptis

Formula	Minggu ke-1			Minggu ke-2		
	Warna	Bau	Tekstur	Warna	Bau	Tekstur
F1	Putih	Adeps lanae	Semi padat	Putih	Adeps lanae	Semi padat
F2	Hijau	Adeps lanae	Semi padat	Hijau	Adeps lanae	Semi padat
F3	Hijau	Adeps lanae	Semi padat	Hijau	Adeps lanae	Semi padat
F4	Hijau	Adeps lanae	Semi padat	Hijau	Adeps lanae	Semi padat

2. pH

Formula	Hari ke-1	Hari ke-7
F1	6,58	6,45
	6,62	6,55
	6,74	6,68
Rata-rata ± SD	6,64 ± 0,08	6,56 ± 0,11
F2	6,62	6,57
	6,23	6,16
	6,45	6,42
Rata-rata ± SD	6,43 ± 0,19	6,38 ± 0,20
F3	6,56	6,36
	5,98	5,83
	6,12	5,87
Rata-rata ± SD	6,22 ± 0,30	6,02 ± 0,29
F4	5,67	5,58
	5,56	5,52
	5,58	5,42
Rata-rata ± SD	5,60 ± 0,05	5,50 ± 0,08

3. Homogenitas

Formula	Minggu ke-1	Minggu ke-2
F1	Homogen	Homogen
F2	Homogen	Homogen
F3	Homogen	Homogen
F4	Homogen	Homogen

4. Viskositas

Formula	Minggu ke-1	Minggu ke-2
FI	250	250
	260	240
	255	250
Rata-rata ± SD	255 ± 5	246,67 ± 5,77
F2	90	85
	85	80
	80	80
Rata-rata ± SD	85 ± 5	81,67 ± 2,88
F3	130	100
	140	85
	140	90
Rata-rata ± SD	136,67 ± 5,77	91,67 ± 7,63
F4	160	150
	160	150
	170	155
Rata-rata ± SD	163,33 ± 5,77	151,67 ± 2,88

5. Daya lekat

Formula	Minggu ke-1	Minggu ke-2
FI	2,7	2
	2,6	1,9
	2,4	1,8
Rata-rata ± SD	2,56 ± 0,15	1,9 ± 0,10
F2	2,3	1,8
	2,2	1,8
	2,1	1,6
Rata-rata ± SD	2,20 ± 0,10	1,73 ± 0,11
F3	2,5	2,1
	2,4	2,0
	1,9	1,3
Rata-rata ± SD	2,26 ± 0,32	1,80 ± 0,43
F4	2,1	1,8
	2,4	2,1
	2,6	2,0
Rata-rata ± SD	2,36 ± 0,25	1,96 ± 0,15

6. Daya sebar

		Minggu ke-1			Minggu ke-2		
Sediaan	Replikasi	Beban					
		0	50	100	0	50	100
Krim kontrol negatif	1	3,39	4,26	4,56	3,5	4,32	4,68
	2	3,35	4,55	4,78	3,64	4,68	4,84
	3	3,42	4,16	4,48	3,82	4,22	4,64
	Rata-rata	3,38 ±	4,32	4,60 ±	3,65 ±	4,40 ±	4,72 ±
	± SD	0,03	±0,20	0,15	0,16	0,24	0,10
Krim ekstrak daun kersen 3%	1	3,86	5,26	5,42	4,74	6,28	6,82
	2	4,54	5,69	6,76	5,26	6,22	6,8
	3	4,26	5,32	5,46	4,63	5,34	6,65
	Rata-rata	4,22 ±	5,42 ±	5,88 ±	4,87 ±	5,94 ±	6,75 ±
	± SD	0,34	0,23	0,76	0,33	0,52	0,09
Krim ekstrak daun kersen 6%	1	3,12	4,82	4,96	4,86	5,46	5,96
	2	4,58	4,64	4,86	4,76	5,84	6,52
	3	4,65	4,78	5,64	4,82	5,62	6,48
	Rata-rata	4,11 ±	4,74 ±	5,15 ±	4,81 ±	5,64 ±	6,32 ±
	± SD	0,86	0,09	0,42	0,05	0,19	0,31
Krim ekstrak daun kersen 9%	1	4,00	4,64	5,22	4,28	5,34	5,78
	2	3,86	4,98	5,18	4,18	5,10	5,82
	3	3,64	4,36	4,76	4,36	5,22	5,72
	Rata-rata	3,83 ±	4,66 ±	5,05 ±	4,27 ±	5,22 ±	5,77 ±
	± SD	0,18	0,31	0,25	0,09	0,12	0,05

Lampiran 9. Hasil stabilitas krim

Sediaan	Siklus 1		Siklus 2		Siklus 3		Siklus 4		Siklus 5		Siklus 6	
	Warna & bau	Tekstur	Warna & bau	Tekstur	Warna & bau	Tekstur	Warna & bau	Tekstur	Warna & bau	Tekstur	Warna & bau	Tekstur
Krim kontrol negatif	Putih, adeps lanae	Semi padat	Putih, adeps lanae	Semi padat	Putih, adeps lanae	Semi padat	Putih, adeps lanae	Semi padat	Putih, adeps lanae	Semi padat	Putih, adeps lanae	Semi padat
Krim ekstrak 3%	Hijau, adeps lanae	Semi padat	Hijau, adeps lanae	Semi padat	Hijau, adeps lanae	Semi padat	Hijau, adeps lanae	Padat & cair	Hijau, adeps lanae	Padat & cair	Hijau, adeps lanae	Padat & cair
Krim ekstrak 6%	Hijau, adeps lanae	Semi padat	Hijau, adeps lanae	Semi padat	Hijau, adeps lanae	Semi padat	Hijau, adeps lanae	Padat & cair	Hijau, adeps lanae	Padat & cair	Hijau, adeps lanae	Padat & cair
Krim ekstrak 9%	Hijau, adeps lanae	Semi padat	Hijau, adeps lanae	Semi padat	Hijau, adeps lanae	Semi padat	Hijau, adeps lanae	Padat & cair	Hijau, adeps lanae	Padat & cair	Hijau, adeps lanae	Padat & cair

Lampiran 10. Hasil pH krim

Sediaan	Replikasi	pH					
		Siklus 1	Siklus 2	Siklus 3	Siklus 4	Siklus 5	Siklus 6
Krim kontrol negatif	1	6,60	6,68	6,69	6,69	6,60	6,58
	2	6,56	6,59	6,61	6,57	6,49	6,47
	3	6,67	6,53	6,44	6,43	6,46	6,42
	Rata-rata $\pm$ SD	6,61 $\pm$ 0,05	6,60 $\pm$ 0,07	6,58 $\pm$ 0,12	6,56 $\pm$ 0,13	6,51 $\pm$ 0,07	6,49 $\pm$ 0,08
Krim ekstrak 3%	1	6,33	6,59	6,55	6,47	6,58	6,55
	2	6,38	6,32	6,34	6,38	6,31	6,29
	3	6,60	6,38	6,41	6,42	6,31	6,36
	Rata-rata $\pm$ SD	6,43 $\pm$ 0,14	6,43 $\pm$ 0,14	6,43 $\pm$ 0,10	6,42 $\pm$ 0,04	6,4 $\pm$ 0,15	6,40 $\pm$ 0,13
Krim ekstrak 6%	1	6,55	6,12	6,05	6,15	5,88	5,86
	2	5,89	6,85	6,12	6,10	5,71	5,67
	3	6,08	5,13	5,89	5,76	5,94	5,69
	Rata-rata $\pm$ SD	6,17 $\pm$ 0,33	6,03 $\pm$ 0,86	6,02 $\pm$ 0,11	6,00 $\pm$ 0,21	5,84 $\pm$ 0,11	5,74 $\pm$ 0,10
Krim ekstrak 9%	1	5,81	5,77	5,64	5,54	5,68	5,58
	2	5,50	5,46	5,38	5,55	5,47	5,52
	3	5,44	5,39	5,57	5,50	5,42	5,48
	Rata-rata $\pm$ SD	5,58 $\pm$ 0,19	5,54 $\pm$ 0,20	5,53 $\pm$ 0,13	5,53 $\pm$ 0,02	5,52 $\pm$ 0,13	5,52 $\pm$ 0,05

Lampiran 11. Hasil uji SPSS pH formula krim

1. Data statistik pH krim kontrol negatif

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,238	3	.	,976	3	,702
Standardized Residual for siklus2	,219	3	.	,987	3	,780
Standardized Residual for siklus3	,260	3	.	,959	3	,609
Standardized Residual for siklus4	,187	3	.	,998	3	,915
Standardized Residual for siklus5	,308	3	.	,902	3	,391
Standardized Residual for siklus6	,263	3	.	,955	3	,593

Tests of Within-Subjects Effects					
Measure: pH					
Source		Type III Sum of Squares	df	Mean Square	F
waktu	Sphericity Assumed	,034	5	,007	1,648
	Greenhouse-Geisser	,034	1,052	,032	1,648
	Huynh-Feldt	,034	1,220	,028	1,648
	Lower-bound	,034	1,000	,034	1,648
	Sphericity Assumed	,041	10	,004	
Error(waktu)	Greenhouse-Geisser	,041	2,104	,020	
	Huynh-Feldt	,041	2,440	,017	
	Lower-bound	,041	2,000	,021	

Tests of Within-Subjects Effects		
Measure: pH		
Source		Sig.
waktu	Sphericity Assumed	,234
	Greenhouse-Geisser	,326
	Huynh-Feldt	,322
	Lower-bound	,328
	Sphericity Assumed	
Error(waktu)	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

2. Data statistik pH krim ekstrak daun kersen 3%

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,320	3	.	,883	3	,334
Standardized Residual for siklus2	,304	3	.	,907	3	,407
Standardized Residual for siklus3	,253	3	.	,964	3	,637
Standardized Residual for siklus4	,196	3	.	,996	3	,878
Standardized Residual for siklus5	,385	3	.	,750	3	,000
Standardized Residual for siklus6	,284	3	.	,934	3	,503

Tests of Within-Subjects Effects

Measure: pH

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	,004	5	,001	,081
	Greenhouse-Geisser	,004	1,060	,004	,081
	Huynh-Feldt	,004	1,257	,003	,081
	Lower-bound	,004	1,000	,004	,081
	Sphericity Assumed	,101	10	,010	
Error(siklus)	Greenhouse-Geisser	,101	2,121	,048	
	Huynh-Feldt	,101	2,513	,040	
	Lower-bound	,101	2,000	,050	

Tests of Within-Subjects Effects

Measure: pH

Source		Sig.
siklus	Sphericity Assumed	,994
	Greenhouse-Geisser	,814
	Huynh-Feldt	,847
	Lower-bound	,802
	Sphericity Assumed	
Error(siklus)	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

3. Data statistik pH krim ekstrak daun kersen 6%

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,275	3	.	,943	3	,541
Standardized Residual for siklus2	,207	3	.	,992	3	,834
Standardized Residual for siklus3	,267	3	.	,951	3	,576
Standardized Residual for siklus4	,342	3	.	,844	3	,226
Standardized Residual for siklus5	,287	3	.	,929	3	,485
Standardized Residual for siklus6	,351	3	.	,828	3	,183

Tests of Within-Subjects Effects

Measure: pH

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	,354	5	,071	,489
	Greenhouse-Geisser	,354	1,169	,303	,489
	Huynh-Feldt	,354	1,813	,195	,489
	Lower-bound	,354	1,000	,354	,489
Error(siklus)	Sphericity Assumed	1,446	10	,145	
	Greenhouse-Geisser	1,446	2,338	,618	
	Huynh-Feldt	1,446	3,627	,399	
	Lower-bound	1,446	2,000	,723	

Tests of Within-Subjects Effects

Measure: pH

Source		Sig.
siklus	Sphericity Assumed	,777
	Greenhouse-Geisser	,576
	Huynh-Feldt	,632
	Lower-bound	,557
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

4. Data statistik pH krim ekstrak daun kersen 9%

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,329	3	.	,868	3	,290
Standardized Residual for siklus2	,320	3	.	,883	3	,332
Standardized Residual for siklus3	,284	3	.	,934	3	,503
Standardized Residual for siklus4	,314	3	.	,893	3	,363
Standardized Residual for siklus5	,317	3	.	,888	3	,348
Standardized Residual for siklus6	,219	3	.	,987	3	,780

Tests of Within-Subjects Effects

Measure: pH

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	,008	5	,002	,176
	Greenhouse-Geisser	,008	1,658	,005	,176
	Huynh-Feldt	,008	5,000	,002	,176
	Lower-bound	,008	1,000	,008	,176
Error(siklus)	Sphericity Assumed	,086	10	,009	
	Greenhouse-Geisser	,086	3,317	,026	
	Huynh-Feldt	,086	10,000	,009	
	Lower-bound	,086	2,000	,043	

Tests of Within-Subjects Effects

Measure: pH

Source		Sig.
siklus	Sphericity Assumed	,966
	Greenhouse-Geisser	,811
	Huynh-Feldt	,966
	Lower-bound	,716
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Lampiran 12. Hasil Homogenitas

Sediaan	Siklus 1	Siklus 2	Siklus 3	Siklus 4	Siklus 5	Siklus 6
F1	Homogen	Homogen	Homogen	Homogen	Homogen	Homogen
F2	Homogen	Homogen	Homogen	Tidak homogen	Tidak homogen	Tidak homogen
F3	Homogen	Homogen	Homogen	Tidak homogen	Tidak homogen	Tidak homogen
F4	Homogen	Homogen	Homogen	Tidak homogen	Tidak homogen	Tidak homogen

Keterangan :

F1 : Krim kontrol negatif

F2 : Krim ekstrak daun kersen 3%

F3 : Krim ekstrak daun kersen 6%

F4 : Krim ekstrak daun kersen 9%

Lampiran 13. Hasil Viskositas

Sediaan	Replikasi	Viskositas (Dpas)					
		Siklus 1	Siklus 2	Siklus 3	Siklus 4	Siklus 5	Siklus 6
F1	1	260	260	260	250	250	245
	2	255	250	250	245	250	245
	3	260	255	250	260	240	240
	Rata-rata ± SD	258,33 ± 2,88	255 ± 5	253,33 ± 5,77	251,67 ± 7,63	246,67 ± 5,77	243,33 ± 2,88
F2	1	80	80	70	20	10	8
	2	90	85	75	10	9	7
	3	85	80	80	15	10	5
	Rata-rata ± SD	85 ± 5	81,67 ± 2,88	75 ± 5	15 ± 5	9,67 ± 0,57	6,67 ± 1,52
F3	1	140	85	70	20	6	4
	2	130	90	75	25	8	5
	3	140	100	80	20	9	5
	Rata-rata ± SD	136,67 ± 5,77	91,67 ± 7,63	75 ± 5	21,67 ± 2,88	7,67 ± 1,52	4,67 ± 0,57
F4	1	160	150	100	20	9	5
	2	170	155	90	15	6	4
	3	160	150	100	20	8	4
	Rata-rata ± SD	163,33 ± 5,77	151,67 ± 2,88	96,67 ± 5,77	18,33 ± 2,88	7,67 ± 1,52	4,33 ± 0,57

Keterangan :

F1 : Krim kontrol negatif

F2 : Krim ekstrak daun kersen 3%

F3 : Krim ekstrak daun kersen 6%

F4 : Krim ekstrak daun kersen 9%

Lampiran 14. Hasil uji SPSS viskositas formula krim

1. Data statistik viskositas krim kontrol negatif

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,385	3	.	,750	3	,000
Standardized Residual for siklus2	,175	3	.	1,000	3	1,000
Standardized Residual for siklus3	,385	3	.	,750	3	,000
Standardized Residual for siklus4	,253	3	.	,964	3	,637
Standardized Residual for siklus5	,385	3	.	,750	3	,000
Standardized Residual for siklus6	,385	3	.	,750	3	,000

Tests of Within-Subjects Effects

Measure: viskositas

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	456,944	5	91,389	3,576
	Greenhouse-Geisser	456,944	1,407	324,785	3,576
	Huynh-Feldt	456,944	3,744	122,034	3,576
	Lower-bound	456,944	1,000	456,944	3,576
Error(siklus)	Sphericity Assumed	255,556	10	25,556	
	Greenhouse-Geisser	255,556	2,814	90,821	
	Huynh-Feldt	255,556	7,489	34,125	
	Lower-bound	255,556	2,000	127,778	

Tests of Within-Subjects Effects

Measure: viskositas

Source		Sig.
siklus	Sphericity Assumed	,041
	Greenhouse-Geisser	,166
	Huynh-Feldt	,065
	Lower-bound	,199
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
Lower-bound		

2. Data statistik viskositas krim ekstrak daun kersen 3%

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,175	3	.	1,000	3	1,000
Standardized Residual for siklus2	,385	3	.	,750	3	,000
Standardized Residual for siklus3	,175	3	.	1,000	3	1,000
Standardized Residual for siklus4	,175	3	.	1,000	3	1,000
Standardized Residual for siklus5	,385	3	.	,750	3	,000
Standardized Residual for siklus6	,253	3	.	,964	3	,637

Tests of Within-Subjects Effects

Measure: viskositas

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	22382,500	5	4476,500	270,211
	Greenhouse-Geisser	22382,500	1,620	13813,486	270,211
	Huynh-Feldt	22382,500	5,000	4476,500	270,211
	Lower-bound	22382,500	1,000	22382,500	270,211
Error(siklus)	Sphericity Assumed	165,667	10	16,567	
	Greenhouse-Geisser	165,667	3,241	51,121	
	Huynh-Feldt	165,667	10,000	16,567	
	Lower-bound	165,667	2,000	82,833	

Tests of Within-Subjects Effects

Measure: viskositas

Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,000
	Huynh-Feldt	,000
	Lower-bound	,004
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

2. Data statistik viskositas krim ekstrak daun kersen 6%

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,385	3	.	,750	3	,000
Standardized Residual for siklus2	,253	3	.	,964	3	,637
Standardized Residual for siklus3	,175	3	.	1,000	3	1,000
Standardized Residual for siklus4	,385	3	.	,750	3	,000
Standardized Residual for siklus5	,253	3	.	,964	3	,637
Standardized Residual for siklus6	,385	3	.	,750	3	,000

Tests of Within-Subjects Effects

Measure: viskositas

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	42869,778	5	8573,956	474,865
	Greenhouse-Geisser	42869,778	1,986	21583,542	474,865
	Huynh-Feldt	42869,778	5,000	8573,956	474,865
	Lower-bound	42869,778	1,000	42869,778	474,865
Error(siklus)	Sphericity Assumed	180,556	10	18,056	
	Greenhouse-Geisser	180,556	3,972	45,452	
	Huynh-Feldt	180,556	10,000	18,056	
	Lower-bound	180,556	2,000	90,278	

Tests of Within-Subjects Effects

Measure: viskositas

Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,000
	Huynh-Feldt	,000
	Lower-bound	,002
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

3. Data statistik viskositas krim ekstrak daun kersen 9%

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,385	3	.	,750	3	,000
Standardized Residual for siklus2	,385	3	.	,750	3	,000
Standardized Residual for siklus3	,385	3	.	,750	3	,000
Standardized Residual for siklus4	,385	3	.	,750	3	,000
Standardized Residual for siklus5	,253	3	.	,964	3	,637
Standardized Residual for siklus6	,385	3	.	,750	3	,000

Tests of Within-Subjects Effects

Measure: viskositas

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	80634,000	5	16126,800	944,930
	Greenhouse-Geisser	80634,000	1,008	80013,890	944,930
	Huynh-Feldt	80634,000	1,031	78191,133	944,930
	Lower-bound	80634,000	1,000	80634,000	944,930
Error(siklus)	Sphericity Assumed	170,667	10	17,067	
	Greenhouse-Geisser	170,667	2,016	84,677	
	Huynh-Feldt	170,667	2,062	82,748	
	Lower-bound	170,667	2,000	85,333	

Tests of Within-Subjects Effects

Measure: viskositas

Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,001
	Huynh-Feldt	,001
	Lower-bound	,001
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Lampiran 15. Hasil uji Daya lekat

Sediaan	Replikasi	Daya lekat (detik)					
		Siklus 1	Siklus 2	Siklus 3	Siklus 4	Siklus 5	Siklus 6
F1	1	2,7	2,6	1,9	1,4	1,7	1,2
	2	2,6	2,5	1,8	1,5	1	1,1
	3	2,9	2,3	1,8	1,7	1,2	1,4
	Rata-rata	2,8 ±	2,46 ±	1,83 ±	1,53 ±	1,3 ±	1,23 ±
	± SD	0,15	0,15	0,05	0,15	0,36	0,15
F2	1	1,8	2,2	1,8	1,3	1,5	1,2
	2	2,5	1,9	1,6	1,4	1,2	1
	3	2,4	2,1	1,3	1,3	1,2	1
	Rata-rata	2,23 ±	2,06 ±	1,56 ±	1,33 ±	1,3 ±	1,06 ±
	± SD	0,37	0,15	0,25	0,05	0,17	0,11
F3	1	2,0	2,3	2,2	1,6	1,4	1,4
	2	2,3	1,8	1,9	1,7	1,5	1
	3	2,4	2,4	2,3	1,5	1,6	1
	Rata-rata	2,23 ±	2,16 ±	2,13 ±			1,13 ±
	± SD	0,21	0,32	0,21	1,6 ± 0,1	1,5 ± 0,1	0,23
F4	1	2,7	2,4	2,2	1,8	1,8	1
	2	2,0	2,3	2,0	1,9	1,6	2,2
	3	2,2	2,1	2,2	1,8	1,6	1
	Rata-rata	2,3 ±	2,26 ±	2,13 ±	1,83 ±	1,66 ±	1,4 ±
	± SD	0,36	0,15	0,11	0,05	0,11	0,69

Keterangan :

F1 : Krim kontrol negatif

F2 : Krim ekstrak daun kersen 3%

F3 : Krim ekstrak daun kersen 6%

F4 : Krim ekstrak daun kersen 9%

Lampiran 16. Hasil uji SPSS Daya lekat krim

1. Data statistik daya lekat krim kontrol negatif

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,253	3	.	,964	3	,637
Standardized Residual for siklus2	,253	3	.	,964	3	,637
Standardized Residual for siklus3	,385	3	.	,750	3	,000
Standardized Residual for siklus4	,253	3	.	,964	3	,637
Standardized Residual for siklus5	,276	3	.	,942	3	,537
Standardized Residual for siklus6	,253	3	.	,964	3	,637

Tests of Within-Subjects Effects

Measure: dayalekat

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	5,832	5	1,166	32,398
	Greenhouse-Geisser	5,832	1,581	3,688	32,398
	Huynh-Feldt	5,832	5,000	1,166	32,398
	Lower-bound	5,832	1,000	5,832	32,398
Error(siklus)	Sphericity Assumed	,360	10	,036	
	Greenhouse-Geisser	,360	3,163	,114	
	Huynh-Feldt	,360	10,000	,036	
	Lower-bound	,360	2,000	,180	

Tests of Within-Subjects Effects

Measure: dayalekat

Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,008
	Huynh-Feldt	,000
	Lower-bound	,030
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
Lower-bound		

2. Data statistik daya lekat krim ekstrak daun kersen 3%

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,337	3	.	,855	3	,253
Standardized Residual for siklus2	,253	3	.	,964	3	,637
Standardized Residual for siklus3	,219	3	.	,987	3	,780
Standardized Residual for siklus4	,385	3	.	,750	3	,000
Standardized Residual for siklus5	,385	3	.	,750	3	,000
Standardized Residual for siklus6	,385	3	.	,750	3	,000

Tests of Within-Subjects Effects

Measure: dayalekat

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	3,196	5	,639	12,010
	Greenhouse-Geisser	3,196	1,283	2,492	12,010
	Huynh-Feldt	3,196	2,575	1,241	12,010
	Lower-bound	3,196	1,000	3,196	12,010
Error(siklus)	Sphericity Assumed	,532	10	,053	
	Greenhouse-Geisser	,532	2,565	,207	
	Huynh-Feldt	,532	5,150	,103	
	Lower-bound	,532	2,000	,266	

Tests of Within-Subjects Effects

Measure: dayalekat

Source		Sig.
siklus	Sphericity Assumed	,001
	Greenhouse-Geisser	,051
	Huynh-Feldt	,010
	Lower-bound	,074
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

3. Data statistik daya lekat krim ekstrak daun kersen 6%

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,292	3	.	,923	3	,463
Standardized Residual for siklus2	,328	3	.	,871	3	,298
Standardized Residual for siklus3	,292	3	.	,923	3	,463
Standardized Residual for siklus4	,175	3	.	1,000	3	1,000
Standardized Residual for siklus5	,175	3	.	1,000	3	1,000
Standardized Residual for siklus6	,385	3	.	,750	3	,000

Tests of Within-Subjects Effects

Measure: dayalekat

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	3,023	5	,605	13,775
	Greenhouse-Geisser	3,023	1,916	1,578	13,775
	Huynh-Feldt	3,023	5,000	,605	13,775
	Lower-bound	3,023	1,000	3,023	13,775
Error(siklus)	Sphericity Assumed	,439	10	,044	
	Greenhouse-Geisser	,439	3,831	,115	
	Huynh-Feldt	,439	10,000	,044	
	Lower-bound	,439	2,000	,219	

Tests of Within-Subjects Effects

Measure: dayalekat

Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,018
	Huynh-Feldt	,000
	Lower-bound	,066
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
Lower-bound		

2. Data statistik daya lekat krim ekstrak daun kersen 9%

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,276	3	.	,942	3	,537
Standardized Residual for siklus2	,253	3	.	,964	3	,637
Standardized Residual for siklus3	,385	3	.	,750	3	,000
Standardized Residual for siklus4	,385	3	.	,750	3	,000
Standardized Residual for siklus5	,385	3	.	,750	3	,000
Standardized Residual for siklus6	,385	3	.	,750	3	,000

Tests of Within-Subjects Effects					
Measure: dayalekat					
Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	1,953	5	,391	3,247
	Greenhouse-Geisser	1,953	1,125	1,736	3,247
	Huynh-Feldt	1,953	1,574	1,241	3,247
	Lower-bound	1,953	1,000	1,953	3,247
	Sphericity Assumed	1,203	10	,120	
Error(siklus)	Greenhouse-Geisser	1,203	2,251	,535	
	Huynh-Feldt	1,203	3,147	,382	
	Lower-bound	1,203	2,000	,602	

Tests of Within-Subjects Effects		
Measure: dayalekat		
Source		Sig.
siklus	Sphericity Assumed	,053
	Greenhouse-Geisser	,203
	Huynh-Feldt	,170
	Lower-bound	,213
	Sphericity Assumed	
Error(siklus)	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Lampiran 17. Hasil uji Daya Sebar

Sediaan	Replikasi	Siklus 1			Siklus 2		
		Beban					
		0	50	100	0	50	100
F1	1	3,3	3,97	4,45	3,35	4,00	4,58
	2	3,27	4,07	4,6	3,34	4,24	4,74
	3	3,3	4	4,45	3,46	4,10	4,54
	Rata-rata ± SD	3,29 ± 0,01	4,01 ± 0,05	4,5 ± 0,08	3,38 ± 0,06	4,11 ±0,12	4,62 ± 0,10
F2	1	3,22	3,82	4,22	3,82	4,58	5,15
	2	3,9	4,45	4,62	4,00	4,94	5,22
	3	3,55	3,85	3,97	3,76	4,36	4,42
	Rata-rata ± SD	3,55 ± 0,34	4,04 ± 0,35	4,27 ± 0,32	3,86 ± 0,12	4,62 ± 0,29	4,93 ± 0,44
F3	1	2,32	2,87	3,27	5,15	3,12	3,80
	2	3,3	3,77	4,22	4,64	4,58	5,54
	3	3,45	3,92	4,2	4,69	4,65	5,55
	Rata-rata ± SD	3,02 ± 0,61	3,52 ± 0,56	3,89 ± 0,54	4,82 ± 0,28	4,11 ± 0,86	4,96 ± 1,00
F4	1	3,67	4,27	4,65	3,81	5,18	5,82
	2	4,45	5,4	5,82	4,52	5,67	6,23
	3	4,02	4,77	5,22	4,25	5,26	5,64
	Rata-rata ± SD	4,04 ± 0,39	4,81 ± 0,56	5,23 ± 0,58	4,19 ± 0,35	5,37 ± 0,26	5,89 ± 0,30

Keterangan :

F1 : Krim kontrol negatif

F2 : Krim ekstrak daun kersen 3%

F3 : Krim ekstrak daun kersen 6%

F4 : Krim ekstrak daun kersen 9%

Sediaan	Replikasi	Siklus 3			Siklus 4		
		Beban					
		0	50	100	0	50	100
F1	1	3,45	4,25	4,68	3,48	4,28	4,71
	2	3,84	4,43	4,94	3,87	4,46	4,97
	3	3,56	4,19	4,74	3,60	4,22	4,81
	Rata-rata ± SD	3,61 ± 0,20	4,29 ± 0,12	4,78 ± 0,13	3,65 ± 0,19	4,32 ± 0,12	4,83 ± 0,13
F2	1	4,12	5,00	5,78	6,70	7,20	7,43
	2	4,13	5,20	5,79	6,91	7,10	7,62
	3	4,32	5,10	5,62	7,10	7,20	7,54
	Rata-rata ± SD	4,19 ± 0,11	5,1 ± 0,1	5,73 ± 0,09	6,90 ± 0,20	7,17 ± 0,05	7,53 ± 0,09
F3	1	5,15	3,78	4,22	7,72	7,89	8,38
	2	4,64	5,24	6,00	7,76	7,95	8,47
	3	4,69	5,52	6,24	7,58	7,83	8,25
	Rata-rata ± SD	4,82 ± 0,28	4,84 ± 0,93	5,48 ± 1,10	7,68 ± 0,09	7,89 ± 0,06	8,36 ± 0,11
F4	1	4,81	6,18	6,91	7,87	7,95	8,27
	2	5,12	6,17	6,82	7,64	8,23	8,46
	3	4,60	5,75	6,64	7,95	8,10	8,34
	Rata-rata ± SD	4,84 ± 0,26	6,03 ± 0,24	6,79 ± 0,13	7,82 ± 0,16	8,09 ± 0,14	8,35 ± 0,09

Keterangan :

F1 : Krim kontrol negatif

F2 : Krim ekstrak daun kersen 3%

F3 : Krim ekstrak daun kersen 6%

F4 : Krim ekstrak daun kersen 9%

Sediaan	Replikasi	Siklus 5			Siklus 6		
		Beban					
		0	50	100	0	50	100
F1	1	3,59	4,30	4,74	3,62	4,32	4,75
	2	4,00	4,48	5,00	4,05	4,5	5,02
	3	3,61	4,27	4,84	3,65	4,3	4,87
	Rata-rata ± SD	3,73 ± 0,23	4,35 ± 0,11	4,86 ± 0,13	3,77 ± 0,24	4,37 ± 0,11	4,88 ± 0,13
F2	1	8,33	8,47	8,78	8,89	9,24	9,32
	2	8,12	8,51	8,65	8,79	8,93	9,14
	3	8,22	8,43	8,76	8,80	8,90	9,28
	Rata-rata ± SD	8,22 ± 0,10	8,47 ± 0,04	8,73 ± 0,07	8,82 ± 0,05	9,02 ± 0,18	9,24 ± 0,09
F3	1	8,16	8,47	8,56	8,86	8,92	9,32
	2	8,37	8,52	8,65	8,74	8,84	8,98
	3	8,25	8,68	8,79	8,92	9,18	9,24
	Rata-rata ± SD	8,26 ± 0,10	8,55 ± 0,10	8,67 ± 0,11	8,84 ± 0,09	8,98 ± 0,17	9,18 ± 0,17
F4	1	8,14	8,58	8,64	8,74	8,93	9,18
	2	8,24	8,76	8,88	8,96	9,16	9,28
	3	8,48	8,62	8,74	8,85	8,94	9,14
	Rata-rata ± SD	8,28 ± 0,17	8,65 ± 0,09	8,75 ± 0,12	8,85 ± 0,11	9,01 ± 0,13	9,20 ± 0,07

Keterangan :

F1 : Krim kontrol negatif

F2 : Krim ekstrak daun kersen 3%

F3 : Krim ekstrak daun kersen 6%

F4 : Krim ekstrak daun kersen 9%

Lampiran 18. Hasil uji SPSS Daya sebar krim

Data statistik daya sebar krim kontrol negatif

Tanpa beban

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,363	3	.	,802	3	,119
Standardized Residual for siklus2	,370	3	.	,786	3	,083
Standardized Residual for siklus3	,265	3	.	,953	3	,583
Standardized Residual for siklus4	,278	3	.	,940	3	,529
Standardized Residual for siklus5	,358	3	.	,812	3	,144
Standardized Residual for siklus6	,385	3	.	,750	3	,000

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	,569	5	,114	6,839
	Greenhouse-Geisser	,569	1,091	,522	6,839
	Huynh-Feldt	,569	1,401	,406	6,839
	Lower-bound	,569	1,000	,569	6,839
	Sphericity Assumed	,166	10	,017	
Error(siklus)	Greenhouse-Geisser	,166	2,182	,076	
	Huynh-Feldt	,166	2,803	,059	
	Lower-bound	,166	2,000	,083	

Beban 50 gram

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,353	3	.	,824	3	,174
Standardized Residual for siklus2	,337	3	.	,855	3	,253
Standardized Residual for siklus3	,292	3	.	,923	3	,463
Standardized Residual for siklus4	,292	3	.	,923	3	,463
Standardized Residual for siklus5	,211	3	.	,991	3	,817
Standardized Residual for siklus6	,269	3	.	,949	3	,567

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	,318	5	,064	37,313
	Greenhouse-Geisser	,318	1,688	,189	37,313
	Huynh-Feldt	,318	5,000	,064	37,313
	Lower-bound	,318	1,000	,318	37,313
Error(siklus)	Sphericity Assumed	,017	10	,002	
	Greenhouse-Geisser	,017	3,376	,005	
	Huynh-Feldt	,017	10,000	,002	
	Lower-bound	,017	2,000	,009	

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,005
	Huynh-Feldt	,000
	Lower-bound	,026
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Beban 100 gram**Tests of Normality**

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,196	3	.	,996	3	,878
Standardized Residual for siklus2	,227	3	.	,983	3	,747
Standardized Residual for siklus3	,227	3	.	,983	3	,747
Standardized Residual for siklus4	,301	3	.	,912	3	,424
Standardized Residual for siklus5	,314	3	.	,893	3	,363
Standardized Residual for siklus6	,385	3	.	,750	3	,000

Tests of Within-Subjects Effects

Measure: dayasebar

Source	Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	,348	5	,070
	Greenhouse-Geisser	,348	1,206	,289
	Huynh-Feldt	,348	2,035	,171
	Lower-bound	,348	1,000	,348
Error(siklus)	Sphericity Assumed	,013	10	,001
	Greenhouse-Geisser	,013	2,411	,005
	Huynh-Feldt	,013	4,070	,003
	Lower-bound	,013	2,000	,006

Tests of Within-Subjects Effects

Measure: dayasebar

Measure: dayasebar		
Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,010
	Huynh-Feldt	,001
	Lower-bound	,018
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Data statistik daya sebar krim ekstrak daun kersen 3%

Tanpa beban

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,177	3	.	1,000	3	,968
Standardized Residual for siklus2	,292	3	.	,923	3	,463
Standardized Residual for siklus3	,369	3	.	,787	3	,085
Standardized Residual for siklus4	,180	3	.	,999	3	,945
Standardized Residual for siklus5	,179	3	.	,999	3	,948
Standardized Residual for siklus6	,353	3	.	,824	3	,174

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	82,628	5	16,526	489,452
	Greenhouse-Geisser	82,628	1,646	50,208	489,452
	Huynh-Feldt	82,628	5,000	16,526	489,452
	Lower-bound	82,628	1,000	82,628	489,452
Error(siklus)	Sphericity Assumed	,338	10	,034	
	Greenhouse-Geisser	,338	3,291	,103	
	Huynh-Feldt	,338	10,000	,034	
	Lower-bound	,338	2,000	,169	

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,000
	Huynh-Feldt	,000
	Lower-bound	,002
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
Lower-bound		

Beban 50 gram Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,370	3	.	,786	3	,081
Standardized Residual for siklus2	,230	3	.	,981	3	,736
Standardized Residual for siklus3	,175	3	.	1,000	3	1,000
Standardized Residual for siklus4	,385	3	.	,750	3	,000
Standardized Residual for siklus5	,175	3	.	1,000	3	1,000
Standardized Residual for siklus6	,357	3	.	,816	3	,152

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	66,476	5	13,295	347,386
	Greenhouse-Geisser	66,476	1,395	47,656	347,386
	Huynh-Feldt	66,476	3,611	18,411	347,386
	Lower-bound	66,476	1,000	66,476	347,386
Error(siklus)	Sphericity Assumed	,383	10	,038	
	Greenhouse-Geisser	,383	2,790	,137	
	Huynh-Feldt	,383	7,222	,053	
	Lower-bound	,383	2,000	,191	

Tests of Within-Subjects Effects

Measure: dayasebar

Measure: dayaseba		Sig.
Source		
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,000
	Huynh-Feldt	,000
	Lower-bound	,003
	Sphericity Assumed	
Error(siklus)	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Beban 100 gram

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,227	3	.	,983	3	,747
Standardized Residual for siklus2	,357	3	.	,815	3	,151
Standardized Residual for siklus3	,367	3	.	,794	3	,100
Standardized Residual for siklus4	,208	3	.	,992	3	,826
Standardized Residual for siklus5	,333	3	.	,862	3	,274
Standardized Residual for siklus6	,304	3	.	,907	3	,407

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	63,794	5	12,759	264,895
	Greenhouse-Geisser	63,794	1,385	46,048	264,895
	Huynh-Feldt	63,794	3,508	18,185	264,895
	Lower-bound	63,794	1,000	63,794	264,895
Error(siklus)	Sphericity Assumed	,482	10	,048	
	Greenhouse-Geisser	,482	2,771	,174	
	Huynh-Feldt	,482	7,016	,069	
	Lower-bound	,482	2,000	,241	

Tests of Within-Subjects Effects

Measure: dayasebar

Measure: dayasebar		Sig.
Source		
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,001
	Huynh-Feldt	,000
	Lower-bound	,004
	Sphericity Assumed	
Error(siklus)	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Data statistik daya sebar krim ekstrak daun kersen 6%

Tanpa beban

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,341	3	.	,848	3	,234
Standardized Residual for siklus2	,353	3	.	,823	3	,170
Standardized Residual for siklus3	,353	3	.	,823	3	,170
Standardized Residual for siklus4	,304	3	.	,907	3	,407
Standardized Residual for siklus5	,204	3	.	,993	3	,843
Standardized Residual for siklus6	,253	3	.	,964	3	,637

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	81,825	5	16,365	145,832
	Greenhouse-Geisser	81,825	1,091	74,968	145,832
	Huynh-Feldt	81,825	1,403	58,333	145,832
	Lower-bound	81,825	1,000	81,825	145,832
Error(siklus)	Sphericity Assumed	1,122	10	,112	
	Greenhouse-Geisser	1,122	2,183	,514	
	Huynh-Feldt	1,122	2,805	,400	
	Lower-bound	1,122	2,000	,561	

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,005
	Huynh-Feldt	,002
	Lower-bound	,007
Error(siklus)	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Beban 50 gram Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,337	3	.	,855	3	,253
Standardized Residual for siklus2	,371	3	.	,784	3	,077
Standardized Residual for siklus3	,330	3	.	,867	3	,287
Standardized Residual for siklus4	,175	3	.	1,000	3	1,000
Standardized Residual for siklus5	,298	3	.	,916	3	,439
Standardized Residual for siklus6	,299	3	.	,915	3	,433

Tests of Within-Subjects Effects

Measure: dayasebar

Measure: dayasebu					
Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	88,226	5	17,645	94,441
	Greenhouse-Geisser	88,226	1,070	82,445	94,441
	Huynh-Feldt	88,226	1,302	67,783	94,441
	Lower-bound	88,226	1,000	88,226	94,441
Error(siklus)	Sphericity Assumed	1,868	10	,187	
	Greenhouse-Geisser	1,868	2,140	,873	
	Huynh-Feldt	1,868	2,603	,718	
	Lower-bound	1,868	2,000	,934	

Tests of Within-Subjects Effects

Measure: dayasebar

Measure: dayasebar		
Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,008
	Huynh-Feldt	,004
	Lower-bound	,010
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Beban 100 gram

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,379	3	.	,766	3	,035
Standardized Residual for siklus2	,383	3	.	,754	3	,009
Standardized Residual for siklus3	,346	3	.	,838	3	,208
Standardized Residual for siklus4	,215	3	.	,989	3	,800
Standardized Residual for siklus5	,224	3	.	,984	3	,762
Standardized Residual for siklus6	,299	3	.	,915	3	,433

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	75,364	5	15,073	52,149
	Greenhouse-Geisser	75,364	1,058	71,252	52,149
	Huynh-Feldt	75,364	1,245	60,534	52,149
	Lower-bound	75,364	1,000	75,364	52,149
Error(siklus)	Sphericity Assumed	2,890	10	,289	
	Greenhouse-Geisser	2,890	2,115	1,366	
	Huynh-Feldt	2,890	2,490	1,161	
	Lower-bound	2,890	2,000	1,445	

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,016
	Huynh-Feldt	,010
	Lower-bound	,019
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Data statistik daya sebar krim ekstrak daun kersen 9%

Tanpa beban

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,194	3	.	,997	3	,887
Standardized Residual for siklus2	,229	3	.	,981	3	,738
Standardized Residual for siklus3	,217	3	.	,988	3	,789
Standardized Residual for siklus4	,289	3	.	,928	3	,480
Standardized Residual for siklus5	,272	3	.	,947	3	,554
Standardized Residual for siklus6	,175	3	.	1,000	3	1,000

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	73,163	5	14,633	273,318
	Greenhouse-Geisser	73,163	1,623	45,072	273,318
	Huynh-Feldt	73,163	5,000	14,633	273,318
	Lower-bound	73,163	1,000	73,163	273,318
Error(siklus)	Sphericity Assumed	,535	10	,054	
	Greenhouse-Geisser	,535	3,246	,165	
	Huynh-Feldt	,535	10,000	,054	
	Lower-bound	,535	2,000	,268	

Tests of Within-Subjects Effects

Measure: dayasebar

Measure: Dayasebar		Sig.
Source		
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,000
	Huynh-Feldt	,000
	Lower-bound	,004
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Beban 50 gram

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,197	3	.	,996	3	,873
Standardized Residual for siklus2	,329	3	.	,869	3	,292
Standardized Residual for siklus3	,378	3	.	,767	3	,039
Standardized Residual for siklus4	,186	3	.	,998	3	,921
Standardized Residual for siklus5	,304	3	.	,907	3	,407
Standardized Residual for siklus6	,372	3	.	,783	3	,073

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	49,025	5	9,805	204,731
	Greenhouse-Geisser	49,025	1,299	37,742	204,731
	Huynh-Feldt	49,025	2,706	18,120	204,731
	Lower-bound	49,025	1,000	49,025	204,731
Error(siklus)	Sphericity Assumed	,479	10	,048	
	Greenhouse-Geisser	,479	2,598	,184	
	Huynh-Feldt	,479	5,411	,089	
	Lower-bound	,479	2,000	,239	

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,001
	Huynh-Feldt	,000
	Lower-bound	,005
Error(siklus)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
Lower-bound		

Beban 100 gram

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for siklus1	,177	3	.	1,000	3	,972
Standardized Residual for siklus2	,267	3	.	,952	3	,577
Standardized Residual for siklus3	,253	3	.	,964	3	,637
Standardized Residual for siklus4	,236	3	.	,977	3	,712
Standardized Residual for siklus5	,211	3	.	,991	3	,817
Standardized Residual for siklus6	,276	3	.	,942	3	,537

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Type III Sum of Squares	df	Mean Square	F
siklus	Sphericity Assumed	39,968	5	7,994	143,002
	Greenhouse-Geisser	39,968	1,277	31,297	143,002
	Huynh-Feldt	39,968	2,533	15,780	143,002
	Lower-bound	39,968	1,000	39,968	143,002
	Sphericity Assumed	,559	10	,056	
Error(siklus)	Greenhouse-Geisser	,559	2,554	,219	
	Huynh-Feldt	,559	5,066	,110	
	Lower-bound	,559	2,000	,279	

Tests of Within-Subjects Effects

Measure: dayasebar

Source		Sig.
siklus	Sphericity Assumed	,000
	Greenhouse-Geisser	,003
	Huynh-Feldt	,000
	Lower-bound	,007
	Sphericity Assumed	
Error(siklus)	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Lampiran 19. Hasil Uji Skin Analyzer Hewan Uji

Kelompok	Replikasi	Hasil Uji persen Kolagen				
		Sebelum Induksi UV-A	Setelah Induksi UV-A (T0)	Hari Ke-30 (T30)	Peningkatan parameter	
					T0-T(-14)	T30-T0
(-)	1	69	53	65	-16	12
	2	65	53	67	-12	14
	3	62	56	63	-6	7
	4	62	55	65	-7	10
	5	62	52	65	-10	13
	6	67	52	67	-15	15
Rata-rata±SD		64,5 ± 3,01	53,5 ± 1,64	65,33 ± 1,50	-11 ± 4,09	11,83 ± 2,92
(+))	1	70	55	72	-15	17
	2	76	57	81	-19	24
	3	65	50	73	-15	23
	4	62	50	72	-12	22
	5	61	56	68	-5	12
	6	72	50	76	-22	26
Rata-rata±SD		67,67 ± 5,95	53 ± 3,34	73,67 ± 4,41	-14,67 ± 5,88	20,67 ± 5,20
F1	1	66	54	69	-12	15
	2	72	57	85	-15	28
	3	73	52	80	-21	28
	4	69	58	74	-11	16
	5	70	54	72	-16	18

	6	68	53	68	-15	15
Rata-rata±SD		69,67 ± 2,58	54,67 ± 2,33	74,67 ± 6,62	-15 ± 3,52	20 ± 6,29
F2	1	66	50	63	-16	13
	2	67	65	68	-2	3
	3	73	63	73	-10	10
	4	65	64	68	-1	4
	5	73	60	74	-13	14
	6	64	55	66	-9	11
Rata-rata±SD		68 ± 4	59,5 ± 5,89	68,67 ± 4,17	-8,5 ± 5,95	9,16 ± 4,62
F3	1	72	60	71	-12	11
	2	68	52	66	-16	14
	3	72	50	71	-22	21
	4	70	56	78	-14	22
	5	71	51	70	-20	19
	6	68	43	69	-25	26
Rata-rata±SD		70,16 ± 1,83	52 ± 5,76	70,83 ± 3,97	-18,16 ± 4,99	18,83 ± 5,49

Keterangan :

(-) : Krim kontrol negatif

(+) : Krim kontrol positif

F1 : Krim ekstrak daun kersen 3%

F2 : Krim ekstrak daun kersen 6%

F3 : Krim ekstrak daun kersen 9%

Kelompok	Replikasi	Hasil Uji persen Elastisitas				
		Sebelum Induksi UV-A	Setelah Induksi UV-A (T0)	Hari Ke-30 (T30)	Peningkatan parameter	
					T0-T(-14)	T30-T0
(-)	1	55	42	59	-13	17
	2	61	51	67	-10	16
	3	55	48	50	-7	2
	4	66	51	58	-15	7
	5	55	43	55	-12	12
	6	57	45	56	-12	11
Rata-rata±SD		58,16 ± 4,49	46,67 ± 3,93	57,5 ± 5,61	-11,5 ± 2,73	10,83 ± 5,63
(+)	1	64	33	61	-31	28
	2	69	52	71	-17	19
	3	66	35	70	-31	35
	4	61	50	63	-11	13
	5	67	46	71	-21	25
	6	63	38	68	-25	30
Rata-rata±SD		65 ± 2,89	42,33 ± 8,06	67,33 ± 4,32	-22,67 ± 7,94	25 ± 7,92
F1	1	63	46	68	-17	22
	2	55	41	64	-14	23
	3	57	44	61	-13	17
	4	59	49	62	-10	13
	5	58	49	64	-9	15
	6	67	40	44	-27	4

Rata-rata±SD		59,83 ± 4,40	44,83 ± 3,86	60,5 ± 8,43	-15 ± 6,54	15,67 ± 6,91
F2	1	65	57	63	-8	6
	2	62	55	59	-7	4
	3	66	57	60	-9	3
	4	58	57	57	-1	0
	5	66	55	67	-11	12
	6	64	56	66	-8	10
Rata-rata±SD		63,5 ± 3,08	56,16 ± 0,98	62 ± 4	7,33 ± 3,38	5,83 ± 4,49
F3	1	60	46	55	-14	9
	2	59	49	57	-10	8
	3	60	48	58	-12	10
	4	59	49	55	-10	6
	5	58	47	49	-11	2
	6	64	51	62	-13	11
Rata-rata±SD		60 ± 2,09	48,33 ± 1,75	56 ± 4,28	-11,67 ± 1,63	7,67 ± 3,26

Keterangan :

(-) : Krim kontrol negatif

(+) : Krim kontrol positif

F1 : Krim ekstrak daun kersen 3%

F2 : Krim ekstrak daun kersen 6%

F3 : Krim ekstrak daun kersen 9%

Kelompok	Replikasi	Hasil Uji persen Kelembaban				
		Sebelum Induksi UV-A	Setelah Induksi UV-A (T0)	Hari Ke-30 (T30)	Peningkatan parameter	
					T0-T(-14)	T30-T0
(-)	1	20	8	8	-12	0
	2	16	3	5	-13	2
	3	20	3	7	-17	4
	4	16	3	4	-13	1
	5	13	3	4	-10	1
	6	20	5	8	-15	3
Rata-rata±SD		17,5 ± 2,94	4,16 ± 2,04	6 ± 1,89	-13,33 ± 2,42	1,83 ± 1,47
(+))	1	19	5	16	-14	11
	2	16	9	15	-7	6
	3	18	9	14	-9	5
	4	19	7	10	-12	3
	5	18	10	13	-8	3
	6	16	6	9	-10	3
Rata-rata±SD		17,67 ± 1,36	7,67 ± 1,96	12,83 ± 2,78	-10 ± 2,60	5,16 ± 3,12
F1	1	11	7	10	-4	3
	2	13	8	12	-5	4
	3	10	5	10	-5	5
	4	12	9	11	-3	2
	5	15	7	16	-8	9
	6	15	7	12	-8	5

Rata-rata±SD		12,67 ± 2,06	7,16 ± 1,32	11,83 ± 2,22	-5,5 ± 2,07	4,67 ± 2,42
F2	1	16	7	14	-9	7
	2	14	8	13	-6	5
	3	13	11	12	-2	1
	4	15	8	16	-7	8
	5	16	10	15	-6	5
	6	12	10	11	-2	1
Rata-rata±SD		14,33 ± 1,63	9 ± 1,54	13,5 ± 1,87	-5,33 ± 2,80	4,5 ± 2,94
F3	1	13	9	10	-4	1
	2	13	8	11	-5	3
	3	18	7	13	-11	6
	4	14	4	10	-10	6
	5	16	8	14	-8	6
	6	13	9	12	-4	3
Rata-rata±SD		14,5 ± 2,07	7,5 ± 1,87	11,67 ± 1,63	-7 ± 3,09	4,16 ± 2,13

Keterangan :

(-) : Krim kontrol negatif

(+) : Krim kontrol positif

F1 : Krim ekstrak daun kersen 3%

F2 : Krim ekstrak daun kersen 6%

F3 : Krim ekstrak daun kersen 9%

Lampiran 20. Hasil Uji Statistika Skin Analyzer Hewan Uji

Hasil Uji Paired T-test persen kolagen sebelum dan sesudah induksi sinar UV-A selama 14 hari

One-Sample Kolmogorov-Smirnov Test

		Kontrol Negatif sebelum	Kontrol Negatif sesudah	Kontrol Positif sebelum
N		6	6	6
Normal Parameters ^{a,b}	Mean	64,50	53,50	67,67
	Std. Deviation	3,017	1,643	5,955
Most Extreme Differences	Absolute	,296	,286	,173
	Positive	,296	,286	,173
	Negative	-,204	-,181	-,152
Kolmogorov-Smirnov Z		,726	,701	,423
Asymp. Sig. (2-tailed)		,668	,709	,994

One-Sample Kolmogorov-Smirnov Test

		Kontrol Positif sesudah	Krim ekstrak 3% sebelum	Krim ekstrak 3% sesudah
N		6	6	6
Normal Parameters ^{a,b}	Mean	53,00	69,67	54,67
	Std. Deviation	3,347	2,582	2,338
Most Extreme Differences	Absolute	,315	,150	,279
	Positive	,315	,115	,279
	Negative	-,225	-,150	-,174
Kolmogorov-Smirnov Z		,772	,368	,683
Asymp. Sig. (2-tailed)		,591	,999	,739

One-Sample Kolmogorov-Smirnov Test

		Krim ekstrak 6% sebelum	Krim ekstrak 6% sesudah	Krim ekstrak 9% sebelum
N		6	6	6
Normal Parameters ^{a,b}	Mean	68,00	59,50	70,17
	Std. Deviation	4,000	5,891	1,835
Most Extreme Differences	Absolute	,265	,224	,215
	Positive	,265	,175	,215
	Negative	-,228	-,224	-,175
Kolmogorov-Smirnov Z		,650	,548	,525
Asymp. Sig. (2-tailed)		,792	,925	,945

One-Sample Kolmogorov-Smirnov Test

		Krim ekstrak 9% sesudah
N		6
Normal Parameters ^{a,b}	Mean	52,00
	Std. Deviation	5,762
Most Extreme Differences	Absolute	,198
	Positive	,167
	Negative	-,198
Kolmogorov-Smirnov Z		,484
Asymp. Sig. (2-tailed)		,973

a. Test distribution is Normal.

b. Calculated from data.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Kontrol Negatif sebelum	64,50	6	3,017	1,232
	Kontrol Negatif sesudah	53,50	6	1,643	,671
Pair 2	Kontrol Positif sebelum	67,67	6	5,955	2,431
	Kontrol Positif sesudah	53,00	6	3,347	1,366
Pair 3	Krim ekstrak 3% sebelum	69,67	6	2,582	1,054
	Krim ekstrak 3% sesudah	54,67	6	2,338	,955
Pair 4	Krim ekstrak 6% sebelum	68,00	6	4,000	1,633
	Krim ekstrak 6% sesudah	59,50	6	5,891	2,405
Pair 5	Krim ekstrak 9% sebelum	70,17	6	1,835	,749
	Krim ekstrak 9% sesudah	52,00	6	5,762	2,352

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Kontrol Negatif sebelum & Kontrol Negatif sesudah	6	-,504	,308
Pair 2	Kontrol Positif sebelum & Kontrol Positif sesudah	6	,301	,562
Pair 3	Krim ekstrak 3% sebelum & Krim ekstrak 3% sesudah	6	-,022	,967
Pair 4	Krim ekstrak 6% sebelum & Krim ekstrak 6% sesudah	6	,323	,533
Pair 5	Krim ekstrak 9% sebelum & Krim ekstrak 9% sesudah	6	,549	,260

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	Kontrol Negatif sebelum - Kontrol Negatif sesudah	11,000	4,099	1,673	6,699
Pair 2	Kontrol Positif sebelum - Kontrol Positif sesudah	14,667	5,888	2,404	8,488
Pair 3	Krim ekstrak 3% sebelum - Krim ekstrak 3% sesudah	15,000	3,521	1,438	11,305
Pair 4	Krim ekstrak 6% sebelum - Krim ekstrak 6% sesudah	8,500	5,958	2,432	2,247
Pair 5	Krim ekstrak 9% sebelum - Krim ekstrak 9% sesudah	18,167	4,997	2,040	12,923

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	Kontrol Negatif sebelum - Kontrol Negatif sesudah	15,301	6,574	5	,001
Pair 2	Kontrol Positif sebelum - Kontrol Positif sesudah	20,846	6,102	5	,002
Pair 3	Krim ekstrak 3% sebelum - Krim ekstrak 3% sesudah	18,695	10,434	5	,000

Pair 4	Krim ekstrak 6% sebelum - Krim ekstrak 6% sesudah	14,753	3,494	5	,017
Pair 5	Krim ekstrak 9% sebelum - Krim ekstrak 9% sesudah	23,410	8,906	5	,000

Hasil Uji Paired T-test persen elastisitas sebelum dan sesudah induksi sinar UV-A selama 14 hari

One-Sample Kolmogorov-Smirnov Test

		Kontrol Negatif sebelum	Kontrol Negatif sesudah	Kontrol Positif sebelum
N		6	6	6
Normal Parameters ^{a,b}	Mean	58,17	46,67	65,00
	Std. Deviation	4,491	3,933	2,898
	Absolute	,269	,198	,135
Most Extreme Differences	Positive	,269	,164	,135
	Negative	-,240	-,198	-,135
Kolmogorov-Smirnov Z		,659	,485	,331
Asymp. Sig. (2-tailed)		,777	,973	1,000

One-Sample Kolmogorov-Smirnov Test

		Kontrol Positif sesudah	Krim ekstrak 3% sebelum	Krim ekstrak 3% sesudah
N		6	6	6
Normal Parameters ^{a,b}	Mean	42,33	59,83	44,83
	Std. Deviation	8,066	4,401	3,869
	Absolute	,204	,242	,193
Most Extreme Differences	Positive	,204	,242	,172
	Negative	-,175	-,136	-,193
Kolmogorov-Smirnov Z		,501	,592	,472
Asymp. Sig. (2-tailed)		,963	,874	,979

One-Sample Kolmogorov-Smirnov Test

		Krim ekstrak 6% sebelum	Krim ekstrak 6% sesudah	Krim ekstrak 9% sebelum
N		6	6	6
Normal Parameters ^{a,b}	Mean	63,50	56,17	60,00
	Std. Deviation	3,082	,983	2,098
	Absolute	,231	,302	,333
Most Extreme Differences	Positive	,209	,216	,333
	Negative	-,231	-,302	-,170
Kolmogorov-Smirnov Z		,566	,739	,816
Asymp. Sig. (2-tailed)		,906	,646	,518

One-Sample Kolmogorov-Smirnov Test

		Krim ekstrak 9% sesudah
N		6
Normal Parameters ^{a,b}	Mean	48,33
	Std. Deviation	1,751
	Absolute	,185
Most Extreme Differences	Positive	,185
	Negative	-,148
Kolmogorov-Smirnov Z		,453
Asymp. Sig. (2-tailed)		,986

- a. Test distribution is Normal.
b. Calculated from data.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Kontrol Negatif sebelum	58,17	6	4,491	1,833
	Kontrol Negatif sesudah	46,67	6	3,933	1,606
Pair 2	Kontrol Positif sebelum	65,00	6	2,898	1,183
	Kontrol Positif sesudah	42,33	6	8,066	3,293
Pair 3	Krim ekstat 3% sebelum	59,83	6	4,401	1,797
	Krim ekstat 3% sesudah	44,83	6	3,869	1,579
Pair 4	Krim ekstrak 6% sebelum	63,50	6	3,082	1,258
	Krim ekstrak 6% sesudah	56,17	6	,983	,401
Pair 5	Krim ekstrak 9% sebelum	60,00	6	2,098	,856
	Krim ekstrak 9% sesudah	48,33	6	1,751	,715

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Kontrol Negatif sebelum & Kontrol Negatif sesudah	6	,796	,058
Pair 2	Kontrol Positif sebelum & Kontrol Positif sesudah	6	,222	,672
Pair 3	Krim ekstat 3% sebelum & Krim ekstat 3% sesudah	6	-,249	,635
Pair 4	Krim ekstrak 6% sebelum & Krim ekstrak 6% sesudah	6	-,165	,755
Pair 5	Krim ekstrak 9% sebelum & Krim ekstrak 9% sesudah	6	,653	,159

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	Kontrol Negatif sebelum - Kontrol Negatif sesudah	11,500	2,739	1,118	8,626
Pair 2	Kontrol Positif sebelum - Kontrol Positif sesudah	22,667	7,941	3,242	14,333
Pair 3	Krim ekstat 3% sebelum - Krim ekstat 3% sesudah	15,000	6,542	2,671	8,134
Pair 4	Krim ekstrak 6% sebelum - Krim ekstrak 6% sesudah	7,333	3,386	1,382	3,780
Pair 5	Krim ekstrak 9% sebelum - Krim ekstrak 9% sesudah	11,667	1,633	,667	9,953

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	Kontrol Negatif sebelum - Kontrol Negatif sesudah	14,374	10,286	5	,000
Pair 2	Kontrol Positif sebelum - Kontrol Positif sesudah	31,001	6,991	5	,001

Pair 3	Krim ekstrak 3% sebelum - Krim ekstrak 3% sesudah	21,866	5,616	5	,002
Pair 4	Krim ekstrak 6% sebelum - Krim ekstrak 6% sesudah	10,887	5,305	5	,003
Pair 5	Krim ekstrak 9% sebelum - Krim ekstrak 9% sesudah	13,380	17,500	5	,000

Hasil Uji Paired T-test persen kelembaban sebelum dan sesudah induksi sinar UV-A selama 14 hari

One-Sample Kolmogorov-Smirnov Test

		Kontrol Negatif sebelum	Kontrol Negatif sesudah	Kontrol Positif sebelum
N		6	6	6
Normal Parameters ^{a,b}	Mean	17,50	4,17	17,67
	Std. Deviation	2,950	2,041	1,366
	Absolute	,302	,383	,263
Most Extreme Differences	Positive	,198	,383	,222
	Negative	-,302	-,284	-,263
Kolmogorov-Smirnov Z		,739	,938	,644
Asymp. Sig. (2-tailed)		,646	,343	,801

One-Sample Kolmogorov-Smirnov Test

		Kontrol Positif sesudah	Krim ekstak 3% sebelum	Krim ekstrak 3% sesudah
N		6	6	6
Normal Parameters ^{a,b}	Mean	7,67	12,67	7,17
	Std. Deviation	1,966	2,066	1,329
	Absolute	,251	,204	,283
Most Extreme Differences	Positive	,135	,129	,217
	Negative	-,251	-,204	-,283
Kolmogorov-Smirnov Z		,615	,500	,694
Asymp. Sig. (2-tailed)		,844	,964	,721

One-Sample Kolmogorov-Smirnov Test

		Krim ekstrak 6% sebelum	Krim ekstrak 6% sesudah	Krim ekstrak 9% sebelum
N		6	6	6
Normal Parameters ^{a,b}	Mean	14,33	9,00	14,50
	Std. Deviation	1,633	1,549	2,074
	Absolute	,180	,241	,265
Most Extreme Differences	Positive	,154	,241	,265
	Negative	-,180	-,241	-,235
Kolmogorov-Smirnov Z		,440	,590	,650
Asymp. Sig. (2-tailed)		,990	,878	,792

One-Sample Kolmogorov-Smirnov Test

		Krim ekstrak 9% sesudah
N		6
Normal Parameters ^{a,b}	Mean	7,50
	Std. Deviation	1,871
	Absolute	,272
Most Extreme Differences	Positive	,211
	Negative	-,272

Kolmogorov-Smirnov Z	,666
Asymp. Sig. (2-tailed)	,766

- a. Test distribution is Normal.
b. Calculated from data.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Kontrol Negatif sebelum	17,50	6	2,950	1,204
	Kontrol Negatif sesudah	4,17	6	2,041	,833
Pair 2	Kontrol Positif sebelum	17,67	6	1,366	,558
	Kontrol Positif sesudah	7,67	6	1,966	,803
Pair 3	Krim ekstak 3% sebelum	12,67	6	2,066	,843
	Krim ekstak 3% sesudah	7,17	6	1,329	,543
Pair 4	Krim ekstrak 6% sebelum	14,33	6	1,633	,667
	Krim ekstrak 6% sesudah	9,00	6	1,549	,632
Pair 5	Krim ekstrak 9% sebelum	14,50	6	2,074	,847
	Krim ekstrak 9% sesudah	7,50	6	1,871	,764

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Kontrol Negatif sebelum & Kontrol Negatif sesudah	6	,581	,226
Pair 2	Kontrol Positif sebelum & Kontrol Positif sesudah	6	-,199	,706
Pair 3	Krim ekstak 3% sebelum & Krim ekstak 3% sesudah	6	,316	,542
Pair 4	Krim ekstrak 6% sebelum & Krim ekstrak 6% sesudah	6	-,553	,255
Pair 5	Krim ekstrak 9% sebelum & Krim ekstrak 9% sesudah	6	-,232	,658

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	Kontrol Negatif sebelum - Kontrol Negatif sesudah	13,333	2,422	,989	10,791
Pair 2	Kontrol Positif sebelum - Kontrol Positif sesudah	10,000	2,608	1,065	7,263
Pair 3	Krim ekstak 3% sebelum - Krim ekstak 3% sesudah	5,500	2,074	,847	3,324
Pair 4	Krim ekstrak 6% sebelum - Krim ekstrak 6% sesudah	5,333	2,805	1,145	2,390
Pair 5	Krim ekstrak 9% sebelum - Krim ekstrak 9% sesudah	7,000	3,098	1,265	3,748

Paired Samples Test

	Paired Differences	t	df	Sig. (2-tailed)
	95% Confidence Interval of the Difference			
	Upper			

Pair 1	Kontrol Negatif sebelum - Kontrol Negatif sesudah	15,875	13,484	5	,000
Pair 2	Kontrol Positif sebelum - Kontrol Positif sesudah	12,737	9,393	5	,000
Pair 3	Krim ekstrak 3% sebelum - Krim ekstrak 3% sesudah	7,676	6,497	5	,001
Pair 4	Krim ekstrak 6% sebelum - Krim ekstrak 6% sesudah	8,277	4,658	5	,006
Pair 5	Krim ekstrak 9% sebelum - Krim ekstrak 9% sesudah	10,252	5,534	5	,003

Hasil Uji Paired T-test persen kolagen sebelum dan sesudah dioles krim selama 30 hari

1. Krim kontrol negatif

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	53,5000	6	1,64317	,67082
	sesudah dioles krim	65,3333	6	1,50555	,61464

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum dioles krim & sesudah dioles krim	6	-,728	,101

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-11,83333	2,92689	1,19490	-14,90491

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-8,76175	-9,903	5	,000

2. Krim Kontrol positif

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	53,0000	6	3,34664	1,36626
	sesudah dioles krim	73,6667	6	4,41210	1,80123

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum dioles krim & sesudah dioles krim	6	,122	,818

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-20,66667	5,20256	2,12394	-26,12642

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-15,20691	-9,730	5	,000

3. Krim ekstrak daun kersen 3%**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	54,6667	6	2,33809	,95452
	sesudah dioles krim	74,6667	6	6,62319	2,70391

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum dioles krim & sesudah dioles krim	6	,314	,544

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-20,00000	6,29285	2,56905	-26,60394

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-13,39606	-7,785	5	,001

4. Krim ekstrak daun kersen 6%

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	59,5000	6	5,89067	2,40486
	sesudah dioles krim	68,6667	6	4,17931	1,70620

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum dioles krim & sesudah dioles krim	6	,626	,184

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-9,16667	4,62241	1,88709	-14,01759

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-4,31575	-4,858	5	,005

5. Krim ekstrak daun kersen 9%

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	52,0000	6	5,76194	2,35230
	sesudah dioles krim	70,8333	6	3,97073	1,62104

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum dioles krim & sesudah dioles krim	6	,411	,418

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-18,83333	5,49242	2,24227	-24,59727

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-13,06939	-8,399	5	,000

Hasil Uji Paired T-test persen elastisitas sebelum dan sesudah dioles krim selama 30 hari

1. Krim kontrol negatif

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 sebelum dioles krim	46,6667	6	3,93277	1,60555
sesudah dioles krim	57,5000	6	5,61249	2,29129

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 sebelum dioles krim & sesudah dioles krim	6	,344	,504

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-10,83333	5,63619	2,30097	-16,74815

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-4,91851	-4,708	5	,005

2. Krim Kontrol positif

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 sebelum dioles krim	42,3333	6	8,06639	3,29309
sesudah dioles krim	67,3333	6	4,32049	1,76383

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 sebelum dioles krim & sesudah dioles krim	6	,300	,563

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-25,00000	7,92465	3,23522	-33,31641

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-16,68359	-7,727	5	,001

3. Krim ekstrak daun kersen 3%**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	44,8333	6	3,86868	1,57938
	sesudah dioles krim	60,5000	6	8,43208	3,44238

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum dioles krim & sesudah dioles krim	6	,586	,222

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-15,66667	6,91857	2,82450	-22,92726

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-8,40607	-5,547	5	,003

4. Krim ekstrak daun kersen 6%**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	56,1667	6	,98319	,40139
	sesudah dioles krim	62,0000	6	4,00000	1,63299

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 sebelum dioles krim & sesudah dioles krim	6	-,407	,423

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-5,83333	4,49073	1,83333	-10,54607

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-1,12060	-3,182	5	,024

5. Krim ekstrak daun kersen 9%**Paired Samples Statistics**

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 sebelum dioles krim	48,3333	6	1,75119	,71492
sebelum dioles krim - sesudah dioles krim	56,0000	6	4,28952	1,75119

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 sebelum dioles krim & sesudah dioles krim	6	,719	,107

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-7,66667	3,26599	1,33333	-11,09411

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-4,23922	-5,750	5	,002

Hasil Uji Paired T-test persen kelembaban sebelum dan sesudah dioles krim selama 30 hari

1. Krim kontrol negatif

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	4,1667	6	2,04124	,83333
	sesudah dioles krim	6,0000	6	1,89737	,77460

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum dioles krim & sesudah dioles krim	6	,723	,104

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-1,83333	1,47196	,60093	-3,37806

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-,28861	-3,051	5	,028

2. Krim Kontrol positif

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	7,6667	6	1,96638	,80277
	sesudah dioles krim	12,8333	6	2,78687	1,13774

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum dioles krim & sesudah dioles krim	6	,170	,747

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-5,16667	3,12517	1,27584	-8,44633

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-1,88701	-4,050	5	,010

3. Krim ekstrak daun kersen 3%**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	7,1667	6	1,32916	,54263
	sesudah dioles krim	11,8333	6	2,22860	,90982

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum dioles krim & sesudah dioles krim	6	,146	,782

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-4,66667	2,42212	,98883	-7,20853

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-2,12481	-4,719	5	,005

4. Krim ekstrak daun kersen 6%**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	9,0000	6	1,54919	,63246
	sesudah dioles krim	13,5000	6	1,87083	,76376

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum dioles krim & sesudah dioles krim	6	-,483	,332

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-4,50000	2,94958	1,20416	-7,59539

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-1,40461	-3,737	5	,013

5. Krim ekstrak daun kersen 9%**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum dioles krim	7,5000	6	1,87083	,76376
	sesudah dioles krim	11,6667	6	1,63299	,66667

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	sebelum dioles krim & sesudah dioles krim	6	,262	,616

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	sebelum dioles krim - sesudah dioles krim	-4,16667	2,13698	,87242	-6,40929

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	sebelum dioles krim - sesudah dioles krim	-1,92405	-4,776	5	,005

Hasil uji one way ANOVA peningkatan persen kolagen pada hari ke-30

One-Sample Kolmogorov-Smirnov Test

		peningkatan parameter
N		30
Normal Parameters ^{a,b}	Mean	16,10
	Std. Deviation	6,677
	Absolute	,132
Most Extreme Differences	Positive	,132
	Negative	-,080
Kolmogorov-Smirnov Z		,724
Asymp. Sig. (2-tailed)		,672

a. Test distribution is Normal.

b. Calculated from data.

ANOVA

peningkatan parameter

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	658,867	4	164,717	6,497	,001
Within Groups	633,833	25	25,353		
Total	1292,700	29			

Multiple Comparisons

Dependent Variable: peningkatan parameter

Tukey HSD

(I) kelompok	(J) kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound
kontrol negatif	kontrol positif	-8,833 [*]	2,907	,040	-17,37
	krim ekstrak 3%	-8,167	2,907	,066	-16,70
	krim ekstrak 6%	2,667	2,907	,888	-5,87
	krim ekstrak 9%	-7,000	2,907	,146	-15,54
kontrol positif	kontrol negatif	8,833 [*]	2,907	,040	,30
	krim ekstrak 3%	,667	2,907	,999	-7,87
	krim ekstrak 6%	11,500 [*]	2,907	,005	2,96
	krim ekstrak 9%	1,833	2,907	,969	-6,70
krim ekstrak 3%	kontrol negatif	8,167	2,907	,066	-,37
	kontrol positif	-,667	2,907	,999	-9,20
	krim ekstrak 6%	10,833 [*]	2,907	,008	2,30
	krim ekstrak 9%	1,167	2,907	,994	-7,37
krim ekstrak 6%	kontrol negatif	-2,667	2,907	,888	-11,20
	kontrol positif	-11,500 [*]	2,907	,005	-20,04
	krim ekstrak 3%	-10,833 [*]	2,907	,008	-19,37
	krim ekstrak 9%	-9,667 [*]	2,907	,021	-18,20
krim ekstrak 9%	kontrol negatif	7,000	2,907	,146	-1,54
	kontrol positif	-1,833	2,907	,969	-10,37
	krim ekstrak 3%	-1,167	2,907	,994	-9,70
	krim ekstrak 6%	9,667 [*]	2,907	,021	1,13

Multiple Comparisons

Dependent Variable: peningkatan parameter

Tukey HSD

(I) kelompok	(J) kelompok	95% Confidence Interval	
		Upper Bound	
kontrol negatif	kontrol positif	-,30*	
	krim ekstrak 3%	,37	
	krim ekstrak 6%	11,20	
	krim ekstrak 9%	1,54	
kontrol positif	kontrol negatif	17,37*	
	krim ekstrak 3%	9,20	
	krim ekstrak 6%	20,04*	
	krim ekstrak 9%	10,37	
krim ekstrak 3%	kontrol negatif	16,70	
	kontrol positif	7,87	
	krim ekstrak 6%	19,37*	
	krim ekstrak 9%	9,70	
krim ekstrak 6%	kontrol negatif	5,87	
	kontrol positif	-2,96*	
	krim ekstrak 3%	-2,30*	
	krim ekstrak 9%	-1,13*	
krim ekstrak 9%	kontrol negatif	15,54	
	kontrol positif	6,70	
	krim ekstrak 3%	7,37	
	krim ekstrak 6%	18,20*	

*. The mean difference is significant at the 0.05 level.

peningkatan parameter

Tukey HSD^a

kelompok	N	Subset for alpha = 0.05		
		1	2	3
krim ekstrak 6%	6	9,17		
kontrol negatif	6	11,83	11,83	
krim ekstrak 9%	6		18,83	18,83
krim ekstrak 3%	6		20,00	20,00
kontrol positif	6			20,67
Sig.		,888	,066	,969

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

Hasil uji one way ANOVA peningkatan persen elastisitas pada hari ke-30

One-Sample Kolmogorov-Smirnov Test

		peningkatan parameter
N		30
Normal Parameters ^{a,b}	Mean	13,00
	Std. Deviation	8,867
Most Extreme Differences	Absolute	,133
	Positive	,133
	Negative	-,074
Kolmogorov-Smirnov Z		,730
Asymp. Sig. (2-tailed)		,660

a. Test distribution is Normal.

b. Calculated from data.

ANOVA

peningkatan parameter

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1413,667	4	353,417	10,199	,000
Within Groups	866,333	25	34,653		
Total	2280,000	29			

Multiple Comparisons

Dependent Variable: peningkatan parameter

Tukey HSD

(I) kelompok	(J) kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval
					Lower Bound
kontrol negatif	kontrol positif	-14,167*	3,399	,003	-24,15
	krim ekstrak 3%	-4,833	3,399	,620	-14,81
	krim ekstrak 6%	5,000	3,399	,590	-4,98
	krim ekstrak 9%	3,167	3,399	,882	-6,81
kontrol positif	kontrol negatif	14,167*	3,399	,003	4,19
	krim ekstrak 3%	9,333	3,399	,075	-,65
	krim ekstrak 6%	19,167*	3,399	,000	9,19
	krim ekstrak 9%	17,333*	3,399	,000	7,35
krim ekstrak 3%	kontrol negatif	4,833	3,399	,620	-5,15
	kontrol positif	-9,333	3,399	,075	-19,31
	krim ekstrak 6%	9,833	3,399	,055	-,15
	krim ekstrak 9%	8,000	3,399	,162	-1,98
krim ekstrak 6%	kontrol negatif	-5,000	3,399	,590	-14,98
	kontrol positif	-19,167*	3,399	,000	-29,15
	krim ekstrak 3%	-9,833	3,399	,055	-19,81
	krim ekstrak 9%	-1,833	3,399	,982	-11,81
krim ekstrak 9%	kontrol negatif	-3,167	3,399	,882	-13,15
	kontrol positif	-17,333*	3,399	,000	-27,31
	krim ekstrak 3%	-8,000	3,399	,162	-17,98
	krim ekstrak 6%	1,833	3,399	,982	-8,15

Multiple Comparisons

Dependent Variable: peningkatan parameter

Tukey HSD

(I) kelompok	(J) kelompok	95% Confidence Interval	
		Upper Bound	
kontrol negatif	kontrol positif		-4,19*
	krim ekstrak 3%		5,15
	krim ekstrak 6%		14,98
	krim ekstrak 9%		13,15
kontrol positif	kontrol negatif		24,15*
	krim ekstrak 3%		19,31
	krim ekstrak 6%		29,15*
	krim ekstrak 9%		27,31*
krim ekstrak 3%	kontrol negatif		14,81
	kontrol positif		,65
	krim ekstrak 6%		19,81
	krim ekstrak 9%		17,98
krim ekstrak 6%	kontrol negatif		4,98
	kontrol positif		-9,19*
	krim ekstrak 3%		,15
	krim ekstrak 9%		8,15
krim ekstrak 9%	kontrol negatif		6,81
	kontrol positif		-7,35*
	krim ekstrak 3%		1,98
	krim ekstrak 6%		11,81

*. The mean difference is significant at the 0.05 level.

peningkatan parameter

Tukey HSD^a

kelompok	N	Subset for alpha = 0.05	
		1	2
krim ekstrak 6%	6	5,83	
krim ekstrak 9%	6	7,67	
kontrol negatif	6	10,83	
krim ekstrak 3%	6	15,67	15,67
kontrol positif	6		25,00
Sig.		,055	,075

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

Hasil uji one way ANOVA peningkatan persen kelembaban pada hari ke-30

One-Sample Kolmogorov-Smirnov Test

		peningkatan parameter
N		30
Normal Parameters ^{a,b}	Mean	4,07
	Std. Deviation	2,599
	Absolute	,159
Most Extreme Differences	Positive	,159
	Negative	-,086
Kolmogorov-Smirnov Z		,872
Asymp. Sig. (2-tailed)		,432

a. Test distribution is Normal.

b. Calculated from data.

ANOVA

peningkatan parameter

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	40,533	4	10,133	1,631	,198
Within Groups	155,333	25	6,213		
Total	195,867	29			

Multiple Comparisons

Dependent Variable: peningkatan parameter

Tukey HSD

(I) kelompok	(J) kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval
					Lower Bound
kontrol negatif	kontrol positif	-3,333	1,439	,173	-7,56
	krum ekstrak 3%	-2,833	1,439	,310	-7,06
	krum ekstrak 6%	-2,667	1,439	,367	-6,89
	krum ekstrak 9%	-2,333	1,439	,498	-6,56
kontrol positif	kontrol negatif	3,333	1,439	,173	-,89
	krum ekstrak 3%	,500	1,439	,997	-3,73
	krum ekstrak 6%	,667	1,439	,990	-3,56
	krum ekstrak 9%	1,000	1,439	,956	-3,23
krum ekstrak 3%	kontrol negatif	2,833	1,439	,310	-1,39
	kontrol positif	-,500	1,439	,997	-4,73
	krum ekstrak 6%	,167	1,439	1,000	-4,06
	krum ekstrak 9%	,500	1,439	,997	-3,73
krum ekstrak 6%	kontrol negatif	2,667	1,439	,367	-1,56
	kontrol positif	-,667	1,439	,990	-4,89
	krum ekstrak 3%	-,167	1,439	1,000	-4,39
	krum ekstrak 9%	,333	1,439	,999	-3,89
krum ekstrak 9%	kontrol negatif	2,333	1,439	,498	-1,89
	kontrol positif	-1,000	1,439	,956	-5,23
	krum ekstrak 3%	-,500	1,439	,997	-4,73
	krum ekstrak 6%	-,333	1,439	,999	-4,56

Multiple Comparisons

Dependent Variable: peningkatan parameter

Tukey HSD

(I) kelompok	(J) kelompok	95% Confidence Interval	
		Upper Bound	
kontrol negatif	kontrol positif		,89
	krim ekstrak 3%		1,39
	krim ekstrak 6%		1,56
	krim ekstrak 9%		1,89
kontrol positif	kontrol negatif		7,56
	krim ekstrak 3%		4,73
	krim ekstrak 6%		4,89
	krim ekstrak 9%		5,23
krim ekstrak 3%	kontrol negatif		7,06
	kontrol positif		3,73
	krim ekstrak 6%		4,39
	krim ekstrak 9%		4,73
krim ekstrak 6%	kontrol negatif		6,89
	kontrol positif		3,56
	krim ekstrak 3%		4,06
	krim ekstrak 9%		4,56
krim ekstrak 9%	kontrol negatif		6,56
	kontrol positif		3,23
	krim ekstrak 3%		3,73
	krim ekstrak 6%		3,89

peningkatan parameter

Tukey HSD^a

kelompok	N	Subset for alpha = 0.05	
		1	
kontrol negatif	6		1,83
krim ekstrak 9%	6		4,17
krim ekstrak 6%	6		4,50
krim ekstrak 3%	6		4,67
kontrol positif	6		5,17
Sig.			,173

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

Lampiran 21. Hasil Uji keamanan primer dan okuler krim pada kelinci

A. Uji keamanan primer

Sediaan	Replikasi	Respon setelah pemberian sediaan					
		24 jam		48 jam		72 jam	
		Eritema	Udem a	Eritema	Udem a	Eritema	Udem a
Krim kontrol negatif	1	0	0	0	0	0	0
	2	0	0	1	0	1	0
	3	0	0	0	0	0	0
Total		0	0	1	0	1	0
IIPR		0,67					
Kesimpulan		Krim sangat sedikit mengiritasi					
Krim ekstrak 3%	1	0	0	1	0	1	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
Total		0	0	1	0	1	0
IIPR		0,67					
Kesimpulan		Krim sangat sedikit mengiritasi					
Krim ekstrak 6%	1	0	0	0	0	0	0
	2	0	0	0	0	1	0
	3	0	0	0	0	0	0
Total		0	0	0	0	1	0
IIPR		0,33					
Kesimpulan		Krim sangat sedikit mengiritasi					
Krim ekstrak 9%	1	0	0	0	0	0	0
	2	0	0	1	0	1	0
	3	0	0	0	0	0	0
Total		0	0	1	0	1	0
IIPR		0,67					
Kesimpulan		Krim sangat sedikit mengiritasi					

IIPR : Indeks Iritasi Primer

$$\text{Indeks iritasi primer} = \frac{\text{Jumlah eritema}_{24/48/72\text{jam}} + \text{Jumlah edema}_{24/48/72\text{jam}}}{\text{Jumlah kelinci}}$$

- 1) Krim kontrol negatif = $\frac{2}{3} = 0,67$
- 2) Krim ekstrak kersen 3% = $\frac{2}{3} = 0,67$
- 3) Krim ekstrak kersen 6% = $\frac{1}{3} = 0,33$
- 4) Krim ekstrak kersen 9% = $\frac{2}{3} = 0,67$

B. Uji keamanan okuler

Sediaan	Replikasi	Respon setelah pemberian sediaan											
		Skor iris			Skor kornea			Skor konjungtiva			Skor kemosi		
		24	48	72	24	48	72	24	48	72	24	48	72
Krim kontrol negatif	1	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0
IIO		0											
Kesimpulan		Krim tidak mengiritasi											
Krim ekstrak 3%	1	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0
IIO		0											
Kesimpulan		Krim tidak mengiritasi											
Krim ekstrak 6%	1	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0
IIO		0											
Kesimpulan		Krim tidak mengiritasi											
Krim ekstrak 9%	1	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0
IIO		0											
Kesimpulan		Krim tidak mengiritasi											

IIO : Indeks Iritasi Okuler