Prospect Analysis of Onion (allium cepa L) Production in Indonesia

by Hadrianus Tori , Dyanasari, A. Yusuf Kholil

Submission date: 02-Aug-2023 11:19AM (UTC+0800)
Submission ID: 2140245840
File name: pect_Analysisof_Onion_Allium_cepa_L._Production_in_Indonesia.pdf (370.61K)
Word count: 4276
Character count: 24092

International Journal of Agriculture and Environmental Analytics (IJAEA)
Vol. 2, No. 1, 2023: 1-14

Prospect Analysis of Onion (*allium cepa L*) Production in Indonesia

Hadrianus Tori[1*], Dyanasari[2], A. Yusuf Kholil[3]
Agribusiness Study Program, Faculty of Agriculture, Tribhuwana Tunggadewi University Malang
Corresponding Author: Hadrianus Tori hadrianustori13@gmail.com

ARTICLEINFO

Keywords: Shallots, Indonesia, Prospects, Self-Sufficiency

Received : 12, December
Revised : 30, December
Accepted: 27, January

ABSTRACT

The purpose of this research is to analyze the production of shallots in Indonesia in the last 30 years to the next 30 years, and to analyze why the production of shallots in Indonesia cannot reach production levels as in China, India, the United States and Egypt. The secondary data used is time series data, namely the production of shallots in the last 30 years (1991-2020) using the trend analysis method, shallot production data for the period 1991 – 2020 will be used to predict shallot production for the next 30 years, namely 2021 -2050. The results, Indonesia shallot production in 2021 is 2,615,677, in 2050 it is 4,189,324. But in 2020 Indonesia imported shallots from Vietnam, Malaysia, Thailand of 8.17 thousand tonnes of production in 2020 of 1,815,445. For this reason, the government provides subsidized assistance in 2020 so that production increases by 20%, and production in 2021 increases by 3,138,812, production in 2050 is 5,027,189, if the government always provides subsidies, then Indonesia shallot production in the future will no longer be necessary. Imports in other words, Indonesia achieved self-sufficiency in shallots.

DOI: https://doi.org/10.55927/ijaea.v2i1.2705
E-ISSN: 2962-5572
https://journal.formosapublisher.org/index.php/ijaea/index

INTRODUCTION

Indonesia is one of the countries with the largest population which occupies the fifth position in the world which has an impact on the high demand for national food. Indonesia is an agricultural country, but Indonesia has not been able to achieve self-sufficiency in various food needs, including shallots. Indonesia's inability requires Indonesia to carry out international trade, namely importing goods and services, especially food needs to meet domestic food needs. (Pasaribu, 2013), including the need for shallot seasoning. Red onion is one of the agricultural commodities whose production needs to be increased in the framework of the national food security program. Based on data sourced from the 2019 Horticultural Crop Statistics Central Bureau of Statistics, the six main shallot producing provinces are Central Java, East Java, West Nusa Tenggara, West Java, West Sumatra and South Sulawesi, respectively. production from each of these provinces reached more than 100 thousand tons and in total the six provinces contributed 93.38 percent of the total national shallot production which reached 1.6 million tons. Meanwhile, national shallot production in 2019 grew by 5.11 percent compared to the previous year (BPS, 2020).

Table 1. Production of Indonesian Shallots in 1991-2020

Year	Production (Ton)
1991	509.013
1992	528.145
1993	560.862
1994	636.864
1995	592.544
1996	768.374
1997	605.528
1998	599.203
1999	938.293
2000	772.818
2001	861.150
2002	766.572
2003	762.795
2004	757.399
2005	732.609
2006	794.931
2007	802.810
2008	853.615
2009	965.164
2010	1.048.934
2011	893.124

2012	964.221
2013	1.010.773
2014	1.233.984
2015	1.229.184
2016	1.446.869
2017	1.470.154
2018	1.503.436
2019	1.580.243
2020	1.815.445

Source: (FAO, 2020)

A very worrying shortage of shallot production also occurred in 2008 where shallot production was 853,615 tonnes while the demand for shallots was 969,316 tonnes so that Indonesia experienced the highest shortage of shallot stocks in the 2002-2012 period which reached 115,701 tonnes (Central Bureau of Statistics, 2013) . As a result of the continuation of the policy on these problems, Indonesia has become a net importer of shallots. Fluctuations in shallot imports show an increase in the amount of shallot imports where in 2002 it was 32,930 tons and in 2008 it reached 128,015 tons. but in 2009 there was a sharp decrease in the amount of shallot imports, namely to 67,330 tons and again increased in 2011 to 156,381 tons (Ministry of Agriculture, 2011 and BPS, 2010). Therefore, it is necessary to make efforts to increase national shallot production and the development of shallot farming in Indonesia must be directed at realizing competitive agribusiness and agro-industry. to year and how much shallot production can be achieved in the coming years, with this analysis, it can be known the capability of shallot production in Indonesia, especially in the next 30 years.

Title Analysis of shallot production prospects in Indonesia, data obtained from Foot and agriculture organization, comparing Indonesia's production with four world producing countries namely, China, India, United States, Egypt, the method used is trend analysis for data production for the last 30 years and forecasts for the next 30 years. Research Limitations:

1. This study examines shallot production in the last 30 years, 1991-2020, is predicted for the next 30 years, 2021-2050.
2. Forecasts are made to see an increase in shallot production in Indonesia in the next 30 years and a comparison of the production of the four world shallot producers namely, China, India, the United States, Egypt.

In addition, it is also necessary to carry out an analysis to find out how the world's producing countries are doing it so that they become the world's largest shallot producing country, the world's largest producer, namely China, India, the United States and Egypt. The results of this production analysis can be used as a valuable lesson for Indonesia to be able to increase shallot production and thus Indonesia can reduce imports in the future.

THEORETICAL REVIEW

Red onion *(allium cepa L)* is one of the popular horticultural crops in the culinary world (Dauda. et al, 2013). (Nawangsari. et al, 2008) said shallots function as a cooking spice. Many studies state the usefulness and advantages of shallots, including in research (Hebrews, 2012) explaining the classification of shallots. (Panof, 2019) the difference between shallots and other onions is like onions. (Saos, 2002) the number of shallots is 3-6 cloves. (Usda, 2022) nutrients in shallots. (Int J Mol Cell Med. et al, 2014) the benefits of shallots for health. (Phila et al, 2015) said the allicin compound in shallots. (Oxit et al, 2016) the benefits of onions for the health of one's heart. (Agric Food Chem, 2004) The 11 most popular varieties are shallots with the highest amount. (Asian Pac J Allergy Immunol, 2019) treats allergy symptoms. (Pharmacogn rev et al, 2016) also said shallots can reduce the severity of inflammatory and respiratory reactions. (Molecules, 2016) relieves mild allergy symptoms in the eyes. (Iran, 2013) shallots have anti-bacterial properties. (Biomed, 2013) traditional medicine to help treat colds, coughs, and fever. (Immunol, 2019) in a 4-week study of 16 allergic adults suggested consuming 200 mcg/ml of shallots every day. (Jundishapur, 2014) used shallot extract for cold sores. (Nutrients et al, 2018) reduces the risk of heart disease. (Biotekhnol, 2017) can break blood clots. (Longev, 2016) lowers blood pressure. (Med, 2017) as a decrease in cholesterol. (Longev, 2012) also said the same thing, namely lowering cholesterol and triglycerides. Moleculez et al, 2019) reduces fat percentage. (Biochem, 2017) as a decrease in blood sugar.

Prospects of Shallots in Indonesia

Prospects are a picture of the future according to (Zarkasyi, 2013) it is also said (Mutti, 2004) prospects arise from one's efforts. So that the prospect of shallots in Indonesia is bright enough to be used as a seasoning seasoning, with an increasing population of Indonesia the use of shallots has increased. Shallot production has a negative effect on shallot imports in Indonesia, the low productivity of shallots in Indonesia is related to the quality of the imported seeds used (Darwis, 2004). (Darwis, 2010) also said that shallot production in Indonesia is not all the time.

METHODOLOGY

This research began in October 2022. The secondary data used is time series data, namely the production of shallots in the last 30 years (1991-2020). Sources of research data were obtained through the Director General of Horticulture and the Central Bureau of Statistics (BPS) and obtained through the *Food and Agriculture Organization* (FAO). data analysis method used in this research is trend analysis. the trend method used is *the least square method*, with the following formulation (Djarwanto, 2001):

$$\mathbf{Y = a + b\ (X)} \quad \text{.....(1)}$$

Where :

Y	=	Shallot production to be predicted
A	=	Constant

B = Coefficient
X = Year in numbers (1991 is denoted by the number 1, and 2020 is denoted by the number 30)

a. Shallot Production (Y)
b. Year (X)

RESULTS

Values a and b are the coefficients used in forming the Trend equation model which will then be used for forecasting shallot production for the period 2021-2050. The following is the result of calculating the value of the coefficients a and b:

$$a = \frac{\sum Y}{n}$$

$$a = \frac{28.005.056}{30} = 933.502$$

$$b = \frac{\sum XY}{\sum X^2}$$

$$b = \frac{157.969.996}{8.990} = 17.572$$

Description
Production amount = 28.005.056
Number of years = 30
Total x.y = 157.969.996
Total x^2 = 8.990

From the calculation above, it has been found that the values of the coefficients a and b are,
a = 933,502 and b = 17,752.

From these values a trend has been found:
Y = 933.502 + 17.572 (X)

Estimated year 2050 value X(60), Y = 933,502 + 17,572 (60) = 4,189,324

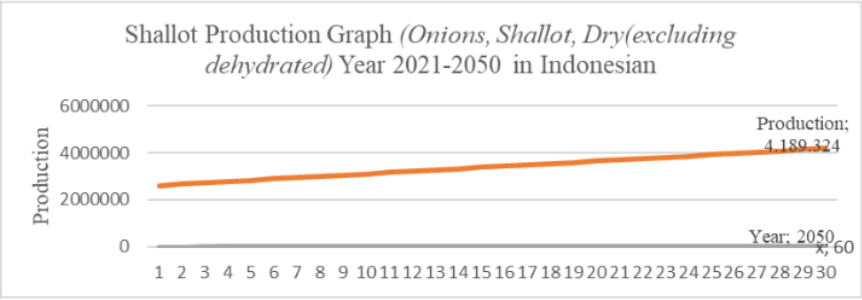

Figure 1. Indonesian Red Onion Production
Source: Data processed by Microsoft Excel

Comparison of Indonesian Shallot Production with World Producing Countries

a) Shallot Production in China

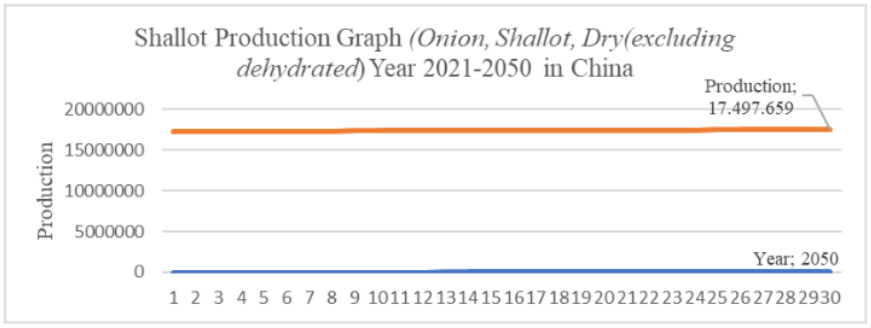

Figure 2. Shallot Production Graph in China
Source: Data Processed by Microsoft Excel

b) Shallot Production in India

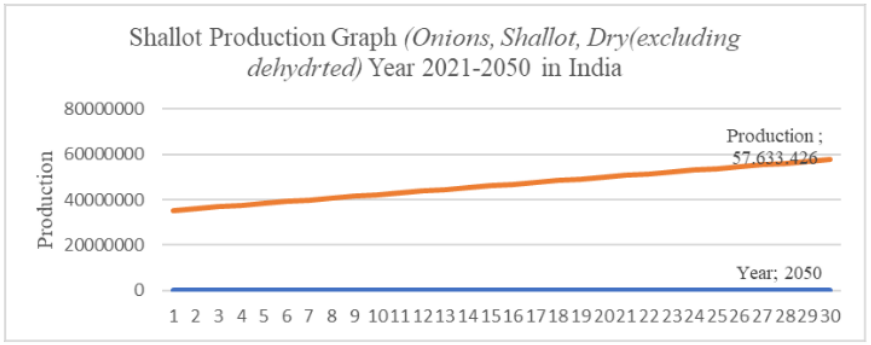

Figure 3. Shallot Production Graph in India
Source: Data Processed by *Microsoft Excel*

c) Onion Production in the United States

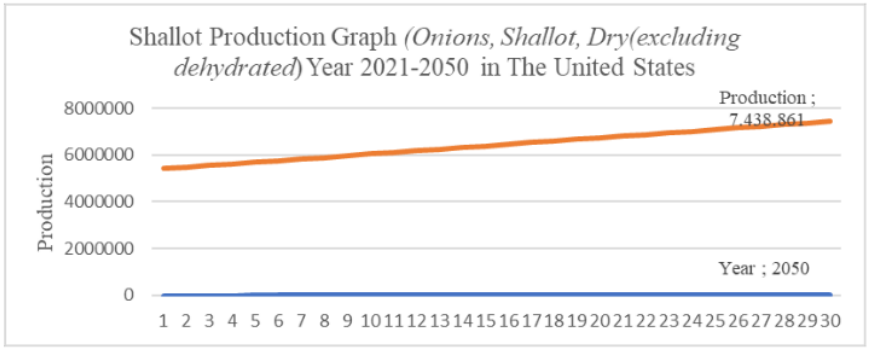

Figure 4. Shallot Production Graph in The United States
Source: Data processed by *Microsoft Excel*

d) Shallot Production In Egypt

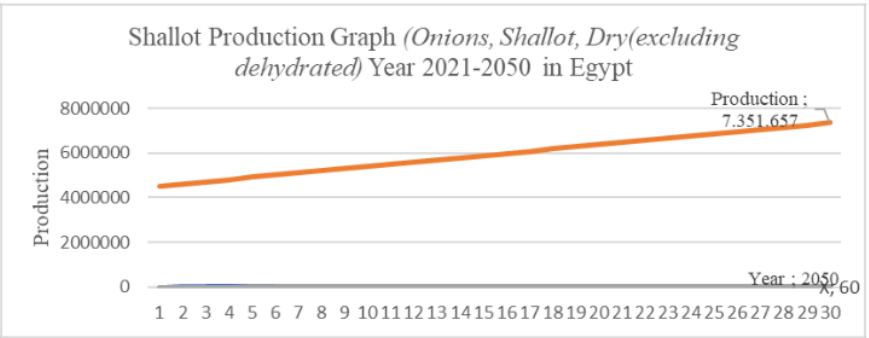

Figure 5. Shallot Production Graph in Egypt
Source: Data Processed by *Microsoft Excel*

Production carried out by the world's producing countries:

1. China according to (Peiwen et al. 2021).
   a) Shallot production in china using advanced f1 shallot hybrid variety.
   b) Application of techniques that produce larger, healthier seedlings before winter, but without spring shoots.
   c) The use of mulching with plastic film is a useful method for increasing shallot yields in China.
   d) A multifactorial mathematical model to simulate the production of high yield and good quality shallot bulbs has been developed and put into practical use, bulb processing is also being carried out.

2. India according to (Immanuelraj, 2014).
   a) Onion production in India uses three seasons viz. kharif, late kharif and rabbi.
   b) In India, till date about 70 varieties of onions including 2 f1 hybrids, Processing etc.

3. The United States according to (Havey, 2017).
   a) Vigor can be restored by natural crossing of two inbred lines to produce hybrid onions.

4. Egypt according to (Dyer, 2022).
   a) Egyptian onions (allium x proliferum) make a bulb at the top of each plant with lots of tiny onions that you can harvest to plant or eat. Egyptian shallots taste like shallots, though slightly spicier.

According to research (Triharyantoet, 2013) said in his research, the low productivity of shallots in Indonesia depends on environmental factors, several factors causing low productivity include low soil fertility, increased attacks by plant-disturbing organisms, changes in the microclimate and seeds that used low quality, Indonesia also imported shallots from Vietnam with an import

value of up to (513 tons), Malaysia with an import value of up to (259 tons), and Thailand with an import value of up to (45 tons) (BPS, 2020). with 2020 production of 1,815,445, shallot production needed in Indonesia is added to imports of 2,632,445. handsprayer, 10 hectares of shallot seeds, 1 ton of NPK fertilizer, 20 units of two-wheeled tractors and 10 units of cultivators according to (DPR RI, 2021). So production increased by 20%.

Scenario of Giving Subsidies by the Government to Increase Production by 20%.

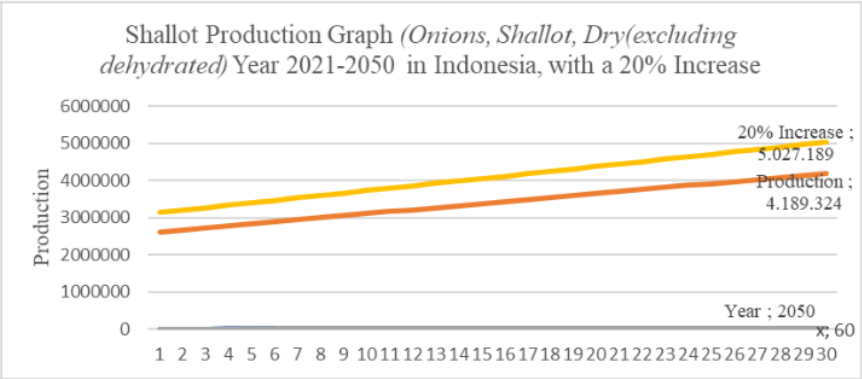

Figure 6. Shallot Production Graph in Indonesia
Source: Data Processed by Microsoft Excel

Forecast of shallot production in Indonesia using trend analysis of shallot production in Indonesia in 2050 it is predicted that shallot production in Indonesia will be (4,189,324 tons), in 2021 shallot production will be (3,138,812 tonnes). Shallot production in Indonesia has increased by 20%, so production in 2050 will be (5,027,189 tons) Comparison of shallot production in Indonesia with world producing countries, namely China, production forecast is (17,497,659 tons) India is forecasted production is (57,633,426 tons) United States production forecast of (7,438,861 tons). Egypt forecast production of (7,351,657 tonnes). Judging from the comparison of the amount of shallot production in Indonesia and the world's producing countries, Indonesia has not been able to compete in the amount of shallot production, but with the help of subsidies from the government it has increased shallot production to 20%. So that the production of shallots in Indonesia is no longer imported.

CONCLUSIONS AND RECOMMENDATIONS

Production of shallots in Indonesia and comparison of production from world shallot producing countries, with an increase in production of 20% thanks to subsidized assistance by the government in 2020, shallot production in Indonesia will increase to almost reach production by world shallot producing countries, namely: the United States with production forecasts for 2050 of 7,438,861 and Egypt for 2050 of 7,351,657 in Indonesia, shallot production in 2050 of 5,027,189. In other words, Indonesia can achieve self-sufficiency in shallots.

Production of shallots in Indonesia in 2020 was 1,815,445, with import conditions of 8.17. if the government provides subsidies so that production can increase by 20%. Indonesia in the future will no longer need to import shallots**.**

Based on the conclusions above, suggestions that can be considered and used as input so that shallot production in Indonesia is maximized include:

1. With this research, it is hoped that the government will always pay attention to shallot production in Indonesia by providing continuous subsidy assistance so that future shallot production can increase.
2. With the help of subsidies by the current government, shallot production in Indonesia has increased again. For this reason, the government should no longer import shallots because imports can be detrimental to farmers, namely the price of domestic shallots will fall and Indonesian shallot farmers will suffer losses because the results do not cover production costs.
3. What is done by shallot farmers in the world's shallot producing countries can be imitated, for example the production of shallots three times a year, using varieties planted, the technology used to increase production.

FURTHER STUDY

Research still has limitations, it is necessary to carry out further research related to the topic Analysis of Onion (*allium cepa L*) Production. Future research can use other variables and take samples from other countries as a comparison.

REFERENCES

Panoff, Lauren. 2019. What Are Shallots? Nutrition, Benefits And Substitutes.https://Www.Healthline.Com/Nutrition/What-Are-Shallots#Origin-Nutrition.

Saos, F Le Guen – Le; Hourmant, A; Esnault, F; Chauvin, J.E. 2002. In Vitro Bulb Development In Shallot (allium Cepa L. Aggregatum Group): Effects Of Anti-Gibberellins, Sucrose And Light.https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC4233876/. September 26, 2022.

USDA (United States Department Of Agriculture). 2022. Shallots, Raw. https://Fdc.Nal.Usda.Gov/Fdcapp.Html#/Fooddetails/170499/Nutrients.

Mlck, Jiri; Jurikova, Tunde; Skrovankova, Sona, Sochor, Jiri. 2016. Quercetin And Its Anti-Allergic Immune Response. Journal Molecules. 2016 May; PMCID: PMC6273625, PMID: 27187333. 2022.

Shima, Famil,Samavati; Hamid-Reza, Mohammadi-Motlagh, Ali, Mostafaie.A Highly Pure Sub-Fraction Of Shallot Extract With Potent In Vitro Anti-Angiogenic Activity. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC4293611/. September, 27, 2022.

Yawen, Zeng; Yuping Li, Jiazhen Yamh, Xiaoying Pu, Juan Du, Xiaomeng Yang, Tao Yang, Shuming Yang. Therapeutic Role Of Functional Components In Alliums For Preventive Chronic Disease In Human Beinghttps://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC5316450/. 27, September, 2022.

Holly, Nicastro, Sharon A, Ross, John A. Milner, Garlic And Onions: Their Cancer Prevention Properties. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC4366009/. 27, September, 2022.

Subrata, Kumar, Biswas;. Does The Interdependence Between Oxidative Stress And Inflammation Explain The Antioxidant Paradox?. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC4736408/. 27, September, 2022.

Ila, Liguori; Gennaro, Russo, Francesco, Curcio, Giulia, Bulli, Luisa, Aran, David, Della-Morte, Gaetano, Gaetano Gargiulo, Gianluca Testa, Francesco, Cacciatore, Demenico Bona Bonaduce, Pasquale Abate. Oxidative Stress, Aging, And Diseases.https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC5927356/. 27, September, 2022.

Philip,Hunter;. The Inflammation Theory Of Disease The Growing Realization That Chronic Inflammation Is Crucial In Many Diseases Opens New Avenues For Treatment. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC3492709/. 28,September, 2022.

Jun Yang; Katherine, J Meyers, Jan Van Der Heide, Rui Hai Liu. Varietal Differences In Phenolic Content And Antioxidant And Antiproliferative Activities Of Onions. https://Pubmed.Ncbi.Nlm.Nih.Gov/15506817/. 28, September, 2022.

Alexander, Victor Anand David; Radhakrishnan Arulmoli, Subramani Parasuraman. Overviews Of Biological Importance Of Quercetin: A Bioactive Flavonoid. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC5214562/. 28, September, 2022.

A.P.Rogerio; A Kanashiro, C Fontanari, E V G Da Silva, Y M Lucisano Valim, E G Saores, L H Faccioli. Anti-Inflammatory Activity Of Quercetin And Isoquercitrin In Experimental Murine Allergic Asthma. https://Pubmed.Ncbi.Nlm.Nih.Gov/18026696/. 28, September, 2022.

Mlcek, Jiri; Tunde Jurikova, Sona Skrovankova, Jiri Sochor. Quercetin And Its Anti-Allergic Immune Response. Https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC6273625/. 28, September, 2022.

Mikaili; Peyman; Surush Maadirad, Millad Moloudizargari, Shahin Aghajanshakeri, Shadi Sarahroodi. Therapeutic Uses And Pharmacological Properties Of Garlic, Shallot, And Their Biologically Active Compounds.

https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC3874089/. 28, September, 2022.

Ismail,Salmiah; Farid Azizi Jalilian, Amir Hossein Talebpour, Mohsen Zargar, Kamyar Shameli, Zamberi Sekawi, Fatemeh Jahanshiri. Chemical Composition And Antibacterial And Cytotoxic Activities Of Allium Hirtifolium Boiss.https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC3591250/. 28, September, 2022.

Arpornchayanon, Warangkana; Soraya Klinprung, Sunee Chansakaow, Nutthiya Hanprasertpong, Saisawat Chaiyasate, Masaaki Tokuda, Hirotoshi Tamura. Antiallergic Activities Of Shallot (Allium Ascalonicum L.) And Its Therapeutic Effects In Allergic Rhinitis. https://Pubmed.Ncbi.Nlm.Nih.Gov/31421664/. 28, September, 2022.

Pipelzadeh, Hassan Mohammad; Mansour Amin, Abolfazl Shiravi Khozani, Mohammad Radmanesh. Shallominthe Active Antimicrobial Constituent Of Persian Shallot In Treatment Of Oral Herpes: A Double-Blind Randomized Clinical Trial. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC4165175/. 28, September, 2022.

Blekkenhorst, Lauren C; Marc Sim, Catherine P. Bondonno, Nicola P. Bondonno, Natalie C. Ward, Richard L. Prince, Amanda Devine, Joshua R. Lewis, Jonathan M. Hodgson. Cardiovascular Health Benefits Of Specific Vegetable Types: A Narrative Review. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC5986475/. 28, September, 2022.

Blekkenhorst, Lauren C; Catherine P Bondonno, Joshua R Lewis, Amanda Devine, Kun Zhu, Wai H Lim, Richard J Woodman, Lawrence J Beilin, Richard L Prince, Jonahan M Hodgson. Cruciferous And Allium Vegetable Intakes Are Inversely Associated With 15-Year Atherosclerotic Vascular Disease Deaths In Older Adult Women. https://Pubmed.Ncbi.Nlm.Nih.Gov/29066442/. 28,September, 2022.

Knekt, P; R Jarvinen, A Reunanen, J Maatela. Flavonoid Intake And Coronary Mortality In Finland: A Cohort Study. https://Pubmed.Ncbi.Nlm.Nih.Gov/8597679/. 28, September, 2022.

Bereta, Hebe, Vanesa; Florencia Bannoud, Marina Insani, Federico Berli, Pablo Hirschegger, Claudio Romula Galmarini, Pablo Federico Cavagnaro. Relationships Between Bioactive Compound Content And The Antiplatelet And Antioxidant Activities Of Six Allium Vegetable Species. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC5569348/. 28, September, 2022.

Garcia-Trejo, Ehecatl M; Abraham S. Arellano-Buendia, Raul Arguello-Garcia, Maria L. Loredo-Mendoza, Edilia, Tapia, Laura G. Sanchez-Lozada, Horacio Osorio-Alonso. Effects Of Allicin On Hypertension And Cardiac Function In Chronic Kidney Disease. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC5136635/. 28,September, 2022.

Mehrabani, Sanaz; Behnod Abbasi, Leila Darvishi, Mehdi Asemi Esfahani, Zahra Maghsoudi, Hossen Khosravi-Boroujeni, Reza Ghiasvand. Effects Of Yogurt And Yogurt Plus Shallot Consumption On Lipid Profiles In Type 2 Diabetic Women. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC5553271/. 28, September, 2022.

Lu, Yin; Zhuojin He, Xiuving Shen, Xiaolu Xu, Jie Fan, Shaohua Wu, Deyong Zhang. Cholesterol-Lowering Effect Of Allicin On Hypercholesterolemic ICR Mice. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC3425886/. 28, September, 2022.

Marrelli, Mariangela; Valentina Amodeo, Giancarlo Stafi, Filomena Conforti. Biological Properties And Bioactive Components Of Allium Cepa L.: Focus On Potential Benefits In The Treatment Of Obesity And Related Comorbidities. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC6337254/. 28, September, 2022.

Lee, Ji-Sook; Yong-Jun Cha, Kyung-Hea Lee, Jung-Eun Yim. Onion Peel Extract Reduces The Percentage Of Body Fat In Overweight And Obese Subjects: A 12-Week, Randomized, Double-Blind, Placebo-Controlled Study. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC4819128/. 28, September, 2022.

Jalal, Razieh; Sayyed Malid Bagheri, Ali Moghimi, Morteza Behnam Rasuli. Hypoglycemic Effect Of Aqueous Shallot And Garlic Extracts In Rats With Fructose-Induced Insulin Resistance. https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC2243241/. 28, September, 2022.

Pasaribu, T. W., & Murni, D. (2013). Analisis Permintaan Impor Bawang Merah Di Indonesia. Jurnal Ilmiah. Jurnal Ekonomi Dan Keuangan, 1(4).

Aryanta, I. W. R. (2019). Bawang Merah Dan Manfaatnya Bagi Kesehatan. Widya Kesehatan, 1(1), 29-35.

Iriani, E. (2013). Prospek Pengembangan Inovasi Teknologi Bawang Merah Di Lahan Sub Optimal (Lahan Pasir) Dalam Upaya Peningkatan Pendapatan Petani. Jurnal Litbang Provinsi Jawa Tengah, 11(2), 231-243.

BPS, 2010. Kegiatan Impor Indonesia, Biro Pusat Statistik, Jakarta. http://Www.Bps.Go.Id/Publications/Publikasi2013.Php (21 Des 2013).

BPS, 2013. Laporan Sosial Ekonomi Indonesia, Biro Pusat Statistik, Jakarta. http://Www.Bps.Go.Id/Publications/Publikasi2013.Php (14 Jan 2014).

Susilo, A., & Adzim, A. (2019). Pengaruh Luas Lahan, Biaya Produksi Dan Harga Pasar Terhadap Peningkatan Pendapatan Petani Bawang Merah: Studi Kasus Di Desa Banaran Wetan Kecamatan Bagor Kabupaten Nganjuk. Journal Of Public Power, 3(1), 12-29.

Fitriana, A., & Sinaga, B. M. (2019). Dampak Kebijakan Impor Dan Faktor Eksternal Terhadap Kesejahteraan Produsen Dan Konsumen Bawang Merah Di Indonesia. Journal Of Agriculture, Resource And Environmental Economics, 2(1), 38-53.

Wiyatiningsih, S., Suryaminarsih, P., & Hasyidan, G. (2021). Utilization Of Fobio And Streptomyces Sp. In Improving The Growth Of Shallots. Nusantara Science And Technology Proceedings, 39-45.

Nurzaman, M., Mutaqin, A. Z., & Wulandari, A. P. (2013). Pemanfaatan Bawang Merah Dan Bawang Putih Untuk Pestisida Nabati Di Desa Cipanas Dan Desa Nangelasari Kecamatan Cipatujah, Kabupaten Tasikmalaya. Dharmakarya, 2(1).

Aldila, H. F., Fariyanti, A., & Tinaprilla, N. (2017). Daya Saing Bawang Merah Di Wilayah Sentra Produksi Di Indonesia. Jurnal Manajemen & Agribisnis, 14(1), 43-43.

Fitriana, A., & Sinaga, B. M. (2019). Dampak Kebijakan Impor Dan Faktor Eksternal Terhadap Kesejahteraan Produsen Dan Konsumen Bawang Merah Di Indonesia. Journal Of Agriculture, Resource And Environmental Economics, 2(1), 38-53.

Purwanti, L. H., & Bendesa, I. K. G. Analisis Determinan Impor Bawang Merah Di Indonesia Periode.

Purba, N. N., Tarigan, K., & Sihombing, L. (2014). Analisis Permintaan Bawang Merah (Allium Ascalonicum L) Di Kota Medan Provinsi Sumatera Utara. Journal On Social Economic Of Agriculture And Agribusiness, 2(8).

Sihombing, L., & Ayu, S. F. (2018). Analisis Daya Saing Komoditas Bawang Merah (Kasus: Desa Cinta Dame, Kecamatan Simanindo, Kabupaten Samosir).

Sutrisna, I. K., & Dewi, M. K. (2016). Pengaruh Tingkat Produksi, Harga Dan Konsumsi Terhadap Impor Bawang Merah Di Indonesia. E-Jurnal Ekonomi Pembangunan Universitas Udayana, 5(1), 44592.

Sunarya, R., & Fatimah, D. D. S. (2016). Pengembangan Sistem Pakar Diagnosis Hama Dan Penyakit Pada Tanaman Bawang Merah Berbasis Android. Jurnal Algoritma,

Pangestuti, R., & Sulistyaningsih, E. (2011). Potensi Penggunaan True Seed Shallot (TSS) Sebagai Sumber Benih Bawang Merah Di Indonesia. Dukungan Agro-Inovasi Untuk Pemberdayaan Petani, 258-266.

USDA-Ars; Havey, Michael J, Universitas Of Wisconsin-Madison. Approved For Posting By Noa In July 2015. Revised June 2017. https://Www.Onions-Usa.Org/All-About-Onions/Retail/Us-Production-And-Availability/. 20, November, 2022

Dyer; Mary H, Credentialed Garden Writer. Egyptian Onion Care: Tips On Growing Walking Onions. https://Www.Gardeningknowhow.Com/Ornamental/Flowers/Walking-Onion/Growing-Walking-Onions.Htm. 23 November, 2022.

Mohamed; Shady Abdullah. Overview Of The 2019 Egypttian Onion Season And Outlook For 2020. https://Www.Tridge.Com/Stories/Overview-Of-The-2019-Egyptian-Onion-Season-And-Outlook-For-2020#:~:Text=Egypt%20is%20the%203rd%20largest,2.3%20million%20tons%20per%20year. 23, November, 2022.

Immanuelraj, T. K., Dastagiri, M. B., & Sajesh, V. K. (2014). Growth And Instability Of Onion Production In Maharashtra, India. 23,November, 2022.

Lubis, Z. (2019, October). Strategi Pengembangan Komoditi Bawang Merah Di Kabupaten Simalungun. In Prosiding Seminar Nasional Hasil Penelitian (Vol. 2, No. 2, Pp. 1685-1691).https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC6273625/. September,26, 2022.21(5): 623.Published Online 2016 Ma12. Doi: 10.3390/Molecules21050623.

Sari, V. (2017). Keragaman genetik bawang merah (Allium cepa L.) berdasarkan marka morfologi dan ISSR. Jurnal Agronomi Indonesia (Indonesian Journal of Agronomy), 45(2), 175-181

Prospect Analysis of Onion (allium cepa L) Production in Indonesia

ORIGINALITY REPORT

5%	4%	2%	2%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Universitas Prof. Dr. Moestopo (Beragama) Student Paper	1%
2	www.onions-usa.org Internet Source	<1%
3	hortikultura.litbang.pertanian.go.id Internet Source	<1%
4	questions.gardeningknowhow.com Internet Source	<1%
5	Atman Atman. "TEKNOLOGI BUDIDAYA BAWANG MERAH ASAL BIJI (Shallot Cultivation Technology from True Shallot Seed)", Jurnal Sains Agro, 2021 Publication	<1%
6	www.science.gov Internet Source	<1%
7	Submitted to University of Queensland Student Paper	<1%

8	en.tums.ac.ir Internet Source	<1 %
9	www.neliti.com Internet Source	<1 %
10	www.semanticscholar.org Internet Source	<1 %
11	Submitted to National University of Singapore Student Paper	<1 %
12	journal.trunojoyo.ac.id Internet Source	<1 %
13	repositori.usu.ac.id Internet Source	<1 %
14	www.mdpi.com Internet Source	<1 %

Exclude quotes	On	Exclude matches	Off
Exclude bibliography	On		