

Understanding Corn Quality Control Process UD Dicky Putra

Adelia Puspitasari

Universitas Nusantara PGRI Kediri, Jl. KH. Ahmad Dahlan No.76, Mojoroto, Kediri City, East Java, 64112, Indonesia

adeliapuspitasari217@gmail.com

Article Information		Abstract
Date of submission	23 December 2024	<p>Research aim: to analyze the process of corn quality control.</p> <p>Method: In this study, the researcher used a descriptive qualitative method. Data collection was carried out by interview, observation and documentation techniques. Data analysis with data reduction.</p> <p>Research Findings: The study's results found that the corn control process includes the selection of raw materials, the drying process, and the maintenance of storage.</p> <p>Theoretical contribution/Originality: This study provides additional insights in the literature review on quality control in the agribusiness sector, especially related to corn processing and storage.</p> <p>Practical / Policy Implications: This research has practical implications, namely, it can be applied by similar businesses.</p> <p>Research limitations: This study's limitations lie in the relatively short duration of the research, so the scope of analysis is limited.</p> <p>Keywords: Quality control, qualitative, quality management</p>
Revised date	4 January 2025	
Date received	4 February 2015	

1. Introduction

The agricultural sector plays a crucial role in supporting the economic growth of a region. In addition to being the primary source of income for the majority of the population, this sector also serves as the main foundation in realizing food security and makes a great contribution to improving people's welfare. With its strategic role, agriculture is one of the main pillars of development that not only has an impact on economic stability, but also social. Therefore, analyzing the competitiveness of the agricultural sector is a very relevant and significant step to strengthen the development of this sector in a region, both in terms of productivity, efficiency, and innovation [1].

Control is a series of activities carried out by the company to regulate the purchase time, determine the optimal inventory level, and determine the amount of raw materials that need to be provided. The main objective of control is to achieve efficiency in inventory costs, so that the company's expenses can be kept to a minimum without disrupting the smooth production process. To realize this goal, one of the steps that can be taken is to purchase raw materials appropriately, both in terms of quantity and time, which are adjusted to production needs based on the plan that has been prepared by the previous company. Thus, good control will help maintain a balance between the availability of raw materials and operational needs, as well as prevent the occurrence of excess or shortage of stock [2].

One of the important things to control is product quality. Product quality is a very important factor in supporting the development of a company, as well as being the main key to increasing sales and obtaining maximum profits. However, in the production process various problems often arise, one of which is the appearance of damaged or defective products. Therefore, special efforts and appropriate steps are needed to overcome

these problems, so that product quality is maintained well and can meet the expected standards [3].

Quality control has the main purpose of providing assurance to consumers that the products produced by the company meet high quality standards. With a structured and effective quality control process, companies can ensure that each product produced not only meets customer expectations, but is also able to provide satisfaction in terms of quality, reliability, and suitability to their needs. This aims to build consumer trust in the company and its products, so that they feel confident that what they buy is the result of a carefully supervised production process. Thus, quality control is one of the important elements in the company's efforts to maintain its reputation, increase competitiveness in the market, and meet various consumer expectations, both in terms of functionality and product aesthetics [4]. One of the products that is needed for quality control is corn.

Corn is one of the crops that is very familiar to the community, especially in various regions in Indonesia, and has an important role in daily life. In addition to being the main food crop after rice, corn is also often used as an alternative staple food, especially in certain regions where it is used as a substitute for rice. At the national level, corn has a significant contribution to the Indonesian economy. This is supported by the growth of the growing food industry, which uses corn as the main raw material. In addition, successes in cultivation technology, including the application of modern agricultural techniques and the development of superior varieties, have pushed corn productivity to improve over time [5].

Production control is a very important aspect and a must in the industry. This control process includes determining the right time to run production as well as the number of products to be completed in each production cycle. This decision is crucial because it is directly related to the efficiency of using tools, facilities, and other resources that have a certain capacity.

The storage and warehousing process is one of the main factors that determine the success of these efforts. Good storage involves not only selecting a suitable place, but also considering optimal timing and location. With proper management of storage and warehousing systems, feed quality can be maintained for a certain period, so that the product remains high selling value when released to the market at the most favorable time. The main purpose of these storage and warehousing activities is to protect and maintain the commodity during the waiting period before distribution and use. This process aims to minimize damage, extend shelf life, and ensure that products still meet the quality standards that have been set [6].

In general, during the dry season, corn production often experiences a significant decline, mainly due to the lack of water needed by the plant to grow. This lack of water inhibits the process of photosynthesis and slows down plant growth, which in turn reduces crop yields. In contrast, during the rainy season, corn production tends to increase, as the abundant availability of water favors faster and healthier plant growth. Overall, farming activities have the main goal of increasing productivity so that the profits obtained from agricultural products can be higher. Agricultural productivity, including in maize cultivation, is highly dependent on the factors of production owned by farmers [7].

Factors such as improper fertilizer use, planting on less fertile land, and agricultural practices that do not follow efficient methods also affect the yield produced by farmers. Various studies that have been conducted have revealed that the main problems in corn quality are often related to too high moisture content, damaged seeds, the presence of

fungus in corn kernels, as well as a number of non-conformities with the requirements of the Indonesian National Standard (SNI) that have been set [8].

Corn production is greatly influenced by a number of factors that play an important role in determining crop yields. One of the main influencing factors is the area of land available for corn cultivation. In addition, the quality of the seeds used also has a big impact on the success of production. The use of the right fertilizer and in sufficient quantities also contributes to increased yields, as fertilizers provide the nutrients that plants need to grow optimally. Skilled and sufficient labor is also a determining factor, as agricultural activities require intensive attention and care throughout the planting to harvest cycle. However, another factor that also greatly affects corn production is climate. A suitable climate is essential for optimal growth of corn crops.

1.1. Problem Statement

Based on the background, the problems faced by UD emerged. Dicky Putra is related to the existence of suppliers who deliver corn in poor conditions, uncertain weather, and price fluctuations. Therefore, the formulation of this research problem is how the corn quality control procedures applied by UD. Dicky Putra at the moment?

1.2. Research Objectives

The purpose of this study is to analyze the corn quality control procedures implemented by UD. Dicky Putra. The results of the research are expected to increase understanding of the steps taken by the company in maintaining the quality of corn products.

2. Method

The method used in this study is a descriptive qualitative approach used to provide a deep understanding of a phenomenon or event by describing in detail and analyzing various aspects related to the research subject. This approach focuses more on the processes, experiences, as well as perspectives of the subjects involved in the phenomenon being studied. In the context of this study, a descriptive qualitative approach was applied to examine in depth how the corn quality control process was carried out by UD Dicky Putra.

In this study, the presence of researchers directly in the field plays a very important role and cannot be replaced. This is because one of the main characteristics of the qualitative approach is that the entire data collection process is carried out by the researcher alone without intermediaries. The researcher plays the role of the main instrument in the research, so his direct involvement in the context or setting of the research is a must. The direct presence of the researcher allows for intense interaction with the informant, which ultimately helps the researcher to capture and understand the social reality or phenomenon being researched in its entirety, depth, and as it is. Through this involvement, researchers can obtain more data because they experience and observe for themselves the real situation in the field related to the research indicators. Therefore, the presence of researchers is not only important, but is a key component in ensuring the validity and depth of findings in qualitative research [9].

To clarify the research process, the researcher made the following research flow:

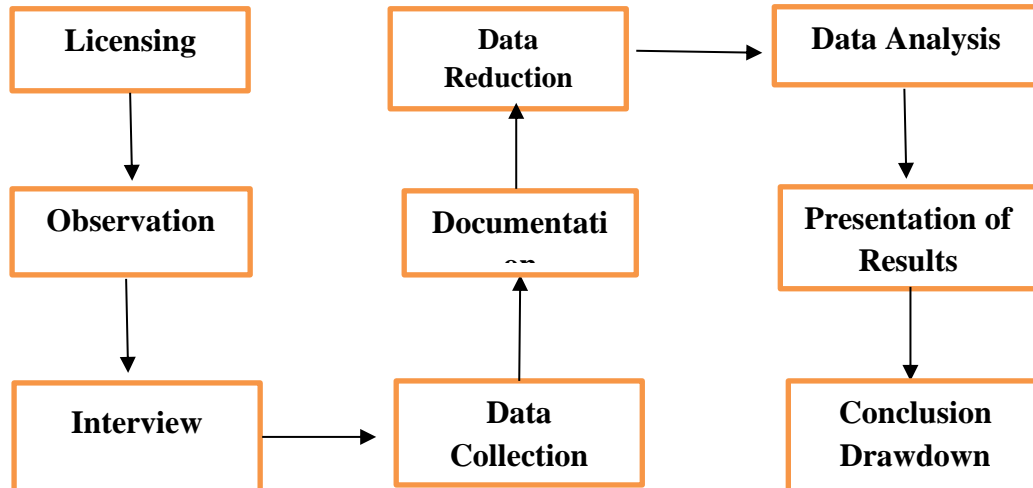


Figure 1. Research Flow

Source: [10]

After all the data is obtained through observation, interview, and documentation techniques, the next step is to conduct data analysis using thematic analysis methods. The interview results are transcribed first, then the coding process is carried out manually. Furthermore, the encoded data is grouped into several main theme categories, such as raw material selection, drying process, and corn storage, to facilitate the drawing of conclusions according to the focus of the research.

3. Results and Discussion

Result

Overview

UD. Dicky Putra is a trading company engaged in buying and selling corn since 2000 founded by Mr. M.Ichwan. UD. Dicky Putra, which is located on Jl. Dr. Sutomo, RT.03/RW.04, Ds. Ngronggot, Kec. This business concentrates on collecting, processing, and distributing corn from local farmers to sell to customers such as farms, animal feed factories, and other sectors that need corn raw materials. In addition, UD. Dicky Putra also serves as an intermediary in the corn supply chain, which helps facilitate communication between farmers and large buyers. As an agricultural business, UD. Dicky Putra may have an extensive network of cooperation with farmers to ensure a consistent and quality supply of corn. The company may also be involved in the basic drying, storage, or processing process to ensure the quality of the corn remains good before it is sold.



Figure 2 UD Logo. Dicky Putra (2024).

Figure 2 shows the logo of UD. Dicky Putra which symbolizes the strength of the business in processing and distributing corn.

Here is the location of UD. Dicky Putra :



Figure 3. Documentation of UD Business Place. Dicky Putra (2024)

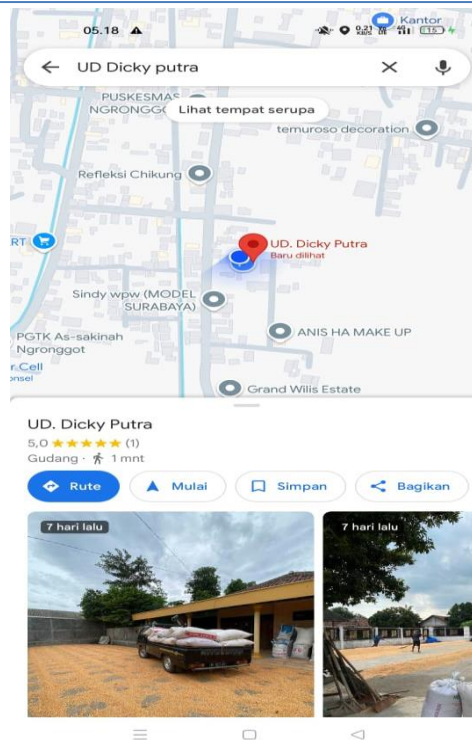


Figure 4. UD Location. Dicky Putra on Google Maps

Source : https://maps.app.goo.gl/TFp9TXuNBBgP5cp18?g_st=iw
(2024)

From pictures 3 and 4, the location of UD is shown. Dicky Putra along with his location on google maps.

Tell me about some of the interviews and small discussions that the researcher conducted with UD owners. Dicky Putra on November 25, 2024 as follows:

Researchers : What are the stages in corn quality control implemented in UD. Dicky Putra?

Informant : **Stages of quality control** corn in UD. Dicky Putra is actually quite structured. We make sure every process runs accordingly **standard** so that the final result is of high quality. Here are the steps:

1. Selection of Raw Materials

The corn that we buy from farmers or **suppliers** is directly selected. We check **its moisture content, cleanliness, and physical condition**. We will not accept corn that is too wet or damaged.

2. Drying

After receiving it, we dry the corn with **a high moisture content** first. This process is important to prevent mold growth and ensure that corn is resistant to being stored longer.

3. Storage

We store corn in warehouses with good **ventilation systems** and temperature control. This is done to keep **the quality** stable until the corn is delivered to the buyer.

4. Packaging

Before shipping, we pack the corn neatly using a special sack or container. At this stage, we also make sure that no **foreign objects** are mixed.

5. Periodic testing

We also conduct **regular quality testing**, such as checking moisture content and cleanliness before the corn is marketed.

6. Shipping Monitoring

During delivery, we ensure that the vehicle used is clean and dry so that the corn is not **contaminated**.

Researchers : What is the procedure carried out from the receipt of corn raw materials to finished products?

Informant: Usually, corn is received directly from farmers or **suppliers**. When the corn arrives, we do a preliminary inspection to ensure its quality. Corn that is wet or has a high **moisture content** is immediately separated for the drying process. Corn with a high moisture content is dried first. We dry them in the **sun**, depending on capacity and weather. Drying is important to prevent mold growth or damage during storage. Once dry, the corn is stored in a warehouse with good air circulation. This storage ensures that the corn stays fresh and ready to be processed or sold at any time.

Researchers : Does UD Dicky Putra have corn quality inspection standards when accepted?

Informant : Yes, UD. Dicky Putra has inspection standards **Corn Quality** when received. We realize that the quality of raw materials is very important to ensure the final product **Meet the standards** that the customer expects. Therefore, we implement clear procedures to check incoming corn. Our standards cover several important aspects such as moisture content, physical damage rate, grain color, and cleanliness. Corn that does not meet these standards will usually be rejected or returned to the supplier. In addition, we also use aids such as moisture meters to ensure that the corn received has a moisture content below 17%, as higher moisture content can cause spoilage during storage. All inspections are carefully carried out before the corn is put into the storage warehouse.

Researchers : What are the parameters checked in corn (e.g. moisture content, damage rate, color)?

Informant : The main parameters we check when receiving corn are:

1. **Moisture Content**: We ensure that the moisture content of the corn is below 17%. Too high a moisture content can cause corn to spoil or mold easily during storage. We use a moisture meter to get accurate results.
2. **Damage Rate**: Corn that has a lot of physical damage, such as broken grains, insect holes, or rotten grains, will not be accepted. We usually set a maximum tolerance of 5% for broken granules.

-
3. **Color:** The color of corn is an important indicator of quality. We look for corn that has a uniform color, is bright, and is not dull. Corn that looks too dark or has moldy patches will be rejected immediately.

Penitentiary : How is corn stored after receipt (e.g. in a warehouse)?

Informant : After the corn is received and passes the quality inspection, the corn will be immediately transferred to our storage warehouse. We use a warehouse-based storage system, where the corn is placed in a special sack or container that is already clean and dry. The corn is also arranged with a certain distance between the piles to ensure good air circulation around the pile.

Researchers : Does the storage warehouse meet standards such as temperature, humidity, and cleanliness?

Informant : Our storage sheds are designed to meet the standards required to maintain the quality of corn. We ensure that the temperature inside the warehouse is at a stable level to prevent condensation that can increase humidity. The humidity inside the warehouse is kept low. To ensure this, we maintain adequate air humidity and ventilation to maintain air circulation. Warehouse cleanliness is a top priority. We carry out regular cleaning to remove dust, corn residues, or other debris that can attract pests.

Researchers : Is UD. Does Dicky Putra have packaging standards to protect the quality of corn?

Informant : Yes, UD. Dicky Putra has packaging standards designed to protect the quality of corn during storage and shipping. We use high-quality plastic sacks that are strong and resistant to moisture. These sacks are able to protect the corn from exposure to air and water that can cause damage. Each sack is usually filled with a certain weight, for example 50 kg, to facilitate handling and prevent damage from excessive pressure.

Researchers : How is the corn packaged to ensure it is kept awake during shipping?

Informant : When the corn is going to be delivered to the customer, we make sure that **Packaging** It is up to standard and safe. Each sack is re-inspected to make sure nothing is torn or damaged. The packed corn is then carefully loaded into the delivery vehicle. We also ensure that the delivery vehicle is in a clean and dry condition before use. If the shipment is made in bulk, we use a tarpaulin to cover the corn to protect it from rain or direct sunlight exposure during the trip.



Figure 5 & 6 Interview Process

Based on the results of the interview, the main idea of the findings used by the informant in understanding the process of controlling the quality of corn in his business so that it can be optimal until now, is as follows:

1. Selection of raw materials
2. Drying Process
3. Guarded storage

The control process applied at UD Dicky Putra has a very important role in ensuring the quality of each product produced. This control not only focuses on the final inspection of the product, but covers all stages of production from the selection of raw materials, the processing process, to the final packaging. With thorough and systematic control, production quality can be maintained properly, so that the products produced are able to meet consumer standards and expectations. The relationship between control and production quality is very significant, because the quality that is maintained will have a direct impact on increasing the number of products that are marketable and in demand by the market. Finally, increasing the company's output can be achieved more optimally. The effectiveness of the quality control carried out is one of the main keys in supporting the growth and sustainability of UD Dicky Putra's business as a whole [11].

Discussion.

As an effort to understand the process of controlling corn quality in UD. Dicky Putra, based on the interview, found the main idea that:

1. Selection of raw materials.

The selection of raw materials is an important step in maintaining the quality of corn at UD. Dicky Putra. This process aims to ensure that only the highest quality corn

is selected, so that the final product produced meets the standards that have been set. This stage involves a number of decision-making activities to determine which raw materials are suitable for use in the production process, with reference to quality standards or special criteria that have been set by the company. In its implementation, the selection of raw materials is not just about choosing the available materials, but must consider various important factors. Some aspects that need to be considered include the quality of materials, the availability of raw materials in the market, price, physical and chemical characteristics, shelf life, and the influence of these materials on the quality of the final product. For example, in the agricultural product processing industry such as corn, the selection of corn as a raw material must consider the level of dryness, seed size, color, cleanliness from pests and fungi, and moisture content according to the provisions so that the production can achieve the expected quality.[12]

The following are the stages of raw material selection applied:

- a. **Moisture Content Check:** The moisture content in corn kernels has a significant influence on their quality and selling value. Therefore, it is important to design and implement a moisture content detection tool in corn kernels. This tool aims to help farmers in ensuring that the corn kernels produced have an optimal level of dryness, so that their quality is maintained and their selling value increases [13].
- b. **Hygiene Checks:** Corn is inspected to ensure it is free of dirt, dust, or other foreign objects that may affect the quality of the product. The cleanliness of raw materials is essential to ensure that the products produced meet high hygienic standards.
- c. **Physical Condition Check:** Maize production has promising market potential. However, many corn crops from the farmer level cannot be utilized by the industry. This is caused by several factors, such as too high a moisture content, damage to corn seeds, poor production quality, non-uniform seed color and size, the presence of broken seeds, and other impurities. All of these factors have an impact on the low quality of the corn produced.



Figure 7 & 8 Examination of the Physical Condition of Corn

- d. Periodic Quality Testing: In addition to the initial inspection, UD. Dicky Putra also conducts regular quality testing on stored corn. This aims to ensure that the corn remains up to quality standards during the storage process until it is used in production.

By carrying out this rigorous raw material selection process, UD. Dicky Putra can ensure that only the best quality corn is processed, resulting in a quality final product that meets customer expectations. The selection process of raw materials is in line with research *"Identification of the main cause of corn kernel bursts and recommendations for process improvements to reduce product defects"* [14].

2. Drying Process.

The drying process is an important step in maintaining the quality of corn at UD. Dicky Putra. The main purpose of drying is to lower the moisture content of corn so that it can be stored longer and avoid damage due to the growth of fungi or microorganisms. Drying corn is an important stage in order to reduce the moisture content to safe limits for storage and distribution. Corn with a high moisture content is at risk of damage due to fungal growth or contamination of microorganisms during the storage process. Research states that water content that exceeds the standard can trigger the growth of *Aspergillus flavus*, which produces aflatoxin that is harmful to human and animal health [15].

The right drying method is able to maintain the physical quality of the corn and extend its shelf life. One of the recommended techniques is a combination of natural drying and oven, which is able to lower moisture content more quickly and evenly. This is in line with the principles of Good Handling Practices (GHP) and Good Storage Practices (GSP) recommended by FAO in the management of post-harvest agricultural products. Thus, optimal drying not only maintains the moisture content of the corn, but

also serves to prevent physical damage, discoloration, and insect infestation, as well as ensure that the corn remains marketable during the storage period [16].

The following are the stages in the drying process applied at UD. Dicky Putra:

a. Acceptance of Corn with High Water Content

Corn received from farmers or suppliers with high moisture content is immediately separated to go through the drying process. The ideal moisture content for corn is below 17%. If the moisture content is too high, the corn can be damaged, rotted, or contaminated with fungi, such as aflatoxin.



Figure 9 Checking the Moisture Content Condition of Corn

b. Natural Drying Methods

At UD. Dicky Putra, Corn drying is highly dependent on weather conditions. When the rainy season arrives, the drying process becomes hampered because the sunlight is not optimal. As a result, sun-dried corn takes longer to dry, it can even take more than three days. This can interfere with production efficiency and the quality of drying results. [15]



Figure 10 Corn Drying Process

c. Monitoring During Drying

During the drying process, strict supervision is carried out to ensure that the moisture content of the corn is reduced appropriately. Drying too quickly can damage the physical corn, while drying too slowly can lead to mold growth. Therefore, monitoring the temperature and humidity of the air is very important for the drying process to take place optimally.

d. Storage After Drying

Once the corn has reached the appropriate moisture content, it is stored in a dry and controlled place, such as in a well-ventilated warehouse. Proper storage after drying is essential to maintain the quality of the corn and prevent further damage.

The drying process that is carried out correctly plays an important role in maintaining the quality of the corn received. Thus, UD. Dicky Putra can ensure that the corn products produced have a long shelf life and remain safe for consumption. This process is in line with research *"Drying using the oven results in lower and more stable moisture content compared to sunlight"* [17].

3. Guarded storage

Good storage is a crucial element in maintaining the quality of corn in UD. Dicky Putra. The main purpose of this storage is to protect the corn from damage caused by environmental factors, pest attacks, or microorganisms, so that the quality is maintained until it is ready for distribution. Here are the storage steps implemented:

a. Warehouse with Optimal Ventilation

The dried corn is stored in special warehouses designed to maintain temperature and humidity stability. A good ventilation system allows air circulation to run smoothly, so that the corn stays in a dry condition and avoids excess moisture that can trigger the growth of fungi or other microorganisms.



Figure 11 Corn Storage Warehouse

b. Periodic Temperature and Humidity Control

The temperature and humidity in the warehouse are regularly monitored. Overheating or high humidity conditions can damage the quality of the corn, increase the risk of pest infestation, and trigger the emergence of mold. With strict controls, the warehouse is able to create an ideal storage environment to maintain the quality of the corn over a longer period of time.

c. Packaging with Special Sacks or Containers

Corn is packaged using sacks or containers designed to allow for sufficient air circulation, while still protecting the corn from dirt, dust, and pest attacks. This packaging also simplifies the storage and transportation process, while ensuring that the corn remains clean and hygienic during the distribution process.



Figure 12 Packaging Corn in Sacks



Figure 13 The Process of Shipping Corn to the Warehouse

By implementing a planned and controlled storage system, UD. Dicky Putra can maintain optimal corn quality, extend its shelf life, and ensure products that are safe and in accordance with market standards. Overall this process is in line with research *"The implementation of cultivation SOPs has been implemented well, having a positive impact on the quality and quantity of corn harvest. Supervision is carried out in the vegetative and generative phases"* [18].

4. Conclusion

The results of this study conclude that corn quality control includes the selection of quality raw materials, the implementation of an optimal drying process, and the application of storage methods that ensure corn remains in good condition. The selection of the right raw materials aims to ensure that only the highest quality corn is used. The drying process is carried out to reduce the moisture content to a safe level, thereby preventing the growth of fungi or microorganisms that can damage the quality. In addition, careful storage and under controlled conditions, such as at a certain temperature and humidity, is essential to maintain the quality of corn so that it is ready for use or marketing. By integrating these measures, the quality of the corn can be maintained according to the desired standards.

This research makes a theoretical contribution by emphasizing the importance of implementing a structured quality control system in the agricultural sector. This aims to ensure that the agricultural products produced meet the set quality standards.

This research makes a practical contribution by providing guidance for other agribusiness actors in an effort to improve product quality through an efficient quality control system. In addition, the research also encourages farmers and suppliers to improve the quality of their

crops to meet the standards applied in the industry, so that they can meet the demands of a tighter and highly competitive market.

Suggestions for future research can be directed at the development or application of automation technology in the process of raw material selection and corn drying. The focus is on improving operational efficiency and ensuring consistency of product quality. This technology can include the use of automated tools or systems to detect the moisture content, cleanliness, and physical condition of corn, while optimizing the drying process to be faster and more accurate, thereby reducing the risk of damage during storage and distribution.

The results of this study recommend that UD. Dicky Putra began to adopt automation technology to support the process of selecting raw materials and drying corn. Some of the devices that can be applied include digital moisture analyzers and portable grain dryers based on solar energy. The use of this technology is believed to increase operational efficiency, maintain consistency in yield quality, while minimizing the risk of damage due to excessive moisture content. The application of this innovation is also in line with the development of modern agribusiness which leads to the digitalization of the production system, in order to strengthen the competitiveness of products in the local and global markets.

Reference

- [1] Novita dan N. A. Sari, "Analisis Daya Saing Sektor Pertanian dalam Upaya Peningkatan Pembangunan Pertanian di Kabupaten Lampung Timur," *Paradig. Agribisnis*, vol. 6, no. 2, hlm. 119–131, 2024.
- [2] T. Dewi, D. A. S. Fauji, dan H. Purnomo, "Pengendalian Persediaan Poly Aluminium Chloride Menggunakan Metode Kuantitas Pesanan Ekonomi di PDAM Kabupaten Nganjuk," *Simp. Manaj. dan IPp Bisnis*. 152–159, 2022, [Online]. Tersedia: <https://proceeding.unpkediri.ac.id/index.php/simanis/article/view/1746>
- [3] M. A. Hariyanto, D. A. S. Fauji, dan L. P. Riani, "Kontrol Kualitas Produk Roti Putih 'DELLA,'" *Eminar Nas. Manaj. Ekon. Akunting*. hlm. 15–22, 2017.
- [4] S. A. Puzianti, T. Pujianto, dan R. Kastaman, "Analisis Kualitas Pengolahan Produk Pertanian: Strip Buah Frutivez dengan Kontrol Proses Statistik," *Pertanian*, vol. 32, no. 3, hlm. 275, 2022, doi: 10.24198/agrikultura.v32i3.35714.
- [5] A. I. Dwi Putra dan M. A. Surianto, "Analisis Penerapan Standar Operasional Prosedur Budidaya Pengendalian Mutu Tanaman Jagung di PT. "Saya bisa sedikit." *J. Manaj. dan Akuntan. Medan*, vol. 4, no. 1, hlm. 15–20, 2022, doi: 10.47709/jumansi.v4i1.2131.
- [6] S. ILHAM dan S. Rizky, "Analisis Pengendalian Persediaan Bahan Baku Jagung untuk Proses Produksi Pakan Ternak di PT. Japfa Comfeed Indonesia Tbk. Unit Gedangan Sidoarjo dengan metode EOQ," *J. Techno. dan Manaj. Sist. Ind.*, vol. 2, no. 1, hlm. 9–19, 2023, doi: 10.56071/jtmsi.v2i1.448.

-
- [7] Nilasari, "Analisis Faktor-Faktor yang Mempengaruhi Produksi dan Pendapatan Pertanian Jagung di Desa Karamapura, Kecamatan Dompu, Kabupaten Dompu," *Univ. Muhammadiyah MakassarHlm.* 12–29, 2019, [Online]. Tersedia: https://digilibadmin.unismuh.ac.id/upload/6983-Full_Text.pdf
- [8] P. H. Susilo, M. G. Rohman, AB Laksono, dan A. Bachri, "Sistem Ahli untuk Menentukan Kualitas Jagung Menggunakan Metode Bayes Naif," vol. 4, 2024.
- [9] D. F. Hariyono, I. Dyah, dan D. A. Paramitha, "Analisis Strategi Pemasaran untuk Meningkatkan Daya Saing di Usaha Mikro Ud. " Al Mubarakah pare," *Senma*, vol. 1, no. 1, hlm. 1–12, 2023.
- [10] Diah Ayu Septi Fauji, Sudarmiati, dan Agus Hermawan, "Membangun Rantai Pasok Anti Rapuh: Perspektif Pelaku UMKM," *J. Ris. dan App. Akuntansi. dan Manaj.*, vol. 5, no. 3, hlm. 367–378, 2022, doi: 10.33795/jraam.v5i3.010.
- [11] P. Al Pauzi dkk., "Simposium Manajemen dan Bisnis II Program Studi Manajemen-FEB UNP Kediri Pengendalian Mutu Beras dalam Proses Produksi di UD Sri Rejeki," vol. 2, hlm. 926–934, 2023.
- [12] R. O. Putri dan H. Dewajani, "Pemilihan Bahan Baku dan Penentuan Kapasitas Produksi Pabrik Shower Gel dengan Penambahan Minyak Esensial Bunga Sakura," *SULINGAN J. Teknol. Pemisahan*, vol. 8, no. 4, hlm. 797–805, 2023, doi: 10.33795/distilat.v8i4.491.
- [13] Y. Gunawan, "Desain dan Konstruksi Perangkat Pendeteksi Kandungan Alkohol Menggunakan Sensor MQ3," vol. 3, no. 1, hlm. 1–9, 2021, doi: 10.12928/biste.v3i1.xxx.
- [14] S. F. Utami, I. Mashabai, S. Ayu, dan A. N. Fitri, "Analisis Permasalahan Benih Patah pada Jagung di Pt. Santosa Utama Lestari (Sul) Menggunakan Metode Diagram Pohon," *J. Ind. dan Teknologi.*, vol. 4, no. 1, hlm. 33–37, 2023, [Online]. Tersedia: <http://jurnal.uts.ac.id/index.php/jitsa/article/view/2689>
- [15] T. Ismandari, "Optimalisasi suhu dan waktu pengeringan dalam kegiatan jagung pasca panen (Zea Mays L)," *Teknologi. Food Media Inf. dan Komun. Ilmu. Teknologi. Pertan.*, vol. 14, no. 1, hlm. 132–145, 2023, doi: 10.35891/tp.v14i1.3779.
- [16] A. Ivan dan A. Surianto, "Mengukur Penerapan Standar Operasional Prosedur Budidaya Pengendalian Kualitas Hasil Jagung di Universitas Muhammadiyah Gresik (1) (2)," *J. Manaj. Bisnis*, vol. 18, no. 4, hlm. 448–458, 2021, [Online]. Tersedia: <http://journal.undiknas.ac.id/index.php/magister-manajemen/448>
- [17] D. Hermasyah, "Analisis Komparatif Karakteristik Fisik Jagung dengan Perbedaan Pengeringan," *Tesis*, 2022.
- [18] A. I. Dwi Putra dan M. A. Surianto, "Mengukur Implementasi Standar Operasional Prosedur Budidaya Pengendalian Mutu Hasil Jagung," *J. Manaj. Bisnis*, vol. 18, no. 4, hlm. 448–458, 2021, doi: 10.38043/jmb.v18i4.3278.