

Characteristics of Dairy Cattle Farmers Post Foot and Mouth Disease (FMD) in the Lowlands of Malang Regency

Nabila Nur Hidayati^{*}, Priyo Sugeng Winarto^{**}, Nanang Febrianto^{***}

^{*}(Postgraduate Student of Animal Husbandry Agribusiness, Faculty of Animal Science, Brawijaya University, Malang
Email: nabilanrhdyt@student.ub.ac.id)

^{**}(Lecturer of Animal Husbandry Agribusiness, Faculty of Animal Science, Brawijaya University, Malang
Email: pswinarto@ub.ac.id)

^{***}(Lecturer of Animal Husbandry Agribusiness, Faculty of Animal Science, Brawijaya University, Malang
Email: nanangfeb@ub.ac.id)

Abstract:

Research conducted in three sub-districts in Malang Regency, East Java, Indonesia investigated the characteristics of breeder cow milk post-epidemic Foot and Mouth Disease (FMD) in November 2023. Survey, interview, and questionnaire techniques used in research are later processed and explained using descriptive analysis. For characteristics breeder based on age, 90% are of productive age namely the majority aged 15 years to 64 years manifold sex men reached 93%. The level of education reached high school level is 40.50%. 86.78% of breeders make this an eye search main, where ownership cattle The largest is 2-3 tails reached 56.20%. In conclusion, this research groups breeder cow dairy in the District Bantur, Gondanglegi, and Kalipare based on six characteristics: age, breed gender, education, occupation, experience breeding, and ownership of cattle

Keywords —Characteristics of dairy cattle farmers, foot and mouth disease, dairy cattle

I. INTRODUCTION

Cattle business helpful development and building subsector darms own mark good strategy in fulfillment needs source food origin cattle namely continuous milk increase along with enhancement amount population (Amam and Harsita, 2019). Enhancement amount residents join in influence development in the sector farm. Development sector farm aimsto fulfillthe need for nutrition, then development farm moment. This is directed at the development of more livestock proceeds through the approach region in which business farm now has Lots founded on the plain low, for one plain low Malang Regency.

In April 2022, illness foot and mouth (FMD) started entering Indonesia, not except for a few sub-districts in the plains of the low Malang Regency. The Ministry of Agriculture has declared PMK

Emergency Status for livestock. As of July 1, 2022, there were 233,370 active cases in 246 districts/cities in 22 provinces, according to Isikhna data. The five provinces with the highest cases are East Java (133,460), West Nusa Tenggara (48,246), Central Java (33,178), Aceh (32,330), and West Java (32,178) (BNPB, 2022).The high mobility of livestock, products, and people can cause the rapid spread of disease.

Handling disease and development business cow milk naturally owns linkages with institutional agribusiness in his business increase mark plus as well as management efficiency (Ulfa, et al. 2020).Breeders expect institutional agribusiness and groups of cattle to interact with each other, so their interconnectedness and mutual feeling need that strengthen the management system of business animal husbandry (Amam and Harsita, 2019). Success management system business Animal

husbandry is also related tightly to the characteristics breeder. Based on observation the beginning that has been done, known that breeders in the area plain low Malang Regency have different characteristics based on age, type of gender, education, employment, and ownership of cattle.

II. MATERIALS AND METHODS

A. Location and Time

This research was carried out in Malang Regency with respondents group breeder cow dairy located in 3 sub-districts, namely Subdistrict Kalipare, Gondanglegi, and Bantur. Research time started in November 2023. Election location study determined in a way *purposive* with considerations: 1) constitute District located in the plains low in Malang Regency with a height <400 meters above sea level (Istiawan and Kastono,2019); 2) Amount population cow milk The largest in Malang Regency and located in the area plain low.

B. Data

This research collects two data types: primary data and secondary data. Primary data was obtained directly during surveys and interviews with a questionnaire in the field, aiming to understand characteristics of breeder cow milk Disease Mouth and Nail, while secondary data obtained from BPS such as geographical reports and climate conditions, was also obtained from Service Livestock and KUD (*Koperasi Unit Desa*(Village Unit Cooperative)) for use know the data and amounts breeders in the District Gondanglegi, Kalipare and Bantur post Disease mouth and nails (FMD).

C. Methods

The method of research used is a study survey with a quantitative approach. The survey is an alternative method of communication with submitting questions to respondents and recording the answers for analysis further (Cooper and Emory, 1995). Information collected was sourced from respondents with a questionnaire. Based on the results survey preliminary work was done and

information from KUD officers in the District Gondanglegi, Bantur, and Kalipare.

D. Analysis Model

Figures mustMethod study qualitative based on conditions object in a way natural, and available several techniques in the retrieval process of the data. Data analysis is a technique analysis used to analyze data with make description of the data collected (Nurdin, 2019). The data is already there collected with a questionnaire. Then processed and analyzed with method descriptive. Method analysis is descriptively used to answer and explain the objective study This is known and group characteristics breeder in three sub-districts on the plains low Malang Regency.

III. RESULTS AND DISCUSSIONS

A. Characteristics Breeder based on Age

Age is one of the indicators showing the ability physique somebody. The age of a breeder can influence productivity. They work in an activity business farm. Age is also related connection with pattern think breeder in determining system management that will be implemented in activity business animal husbandry (Karmila, 2013). Ages 15 years to 64 years are included in the productive age group or are still at the level of active work. (Hasan, Suparmin, Nibras, Fahria, Yuriko and Muhammad, 2022).

In breeder cow dairy in Malang Regency in particular Subdistrict Gondanglegi, Bantur, and Kalipare 90 % are of productive age namely ages 15 years to 64 years. The age of the breeder affects abilities significantly physique and mental in carrying out business cow milk. Breeders who are of productive age tend to own more physically and mentally strong as well as soulful dynamic, easier to adopt new technology, defter, and faster at work. Breeders who are of non-productive age tend to have physical abilities weaker, difficult to accept new and trending technology slower at work Because own limitations in power. Chart characteristics of respondents based on age can be seen in Figure 1.

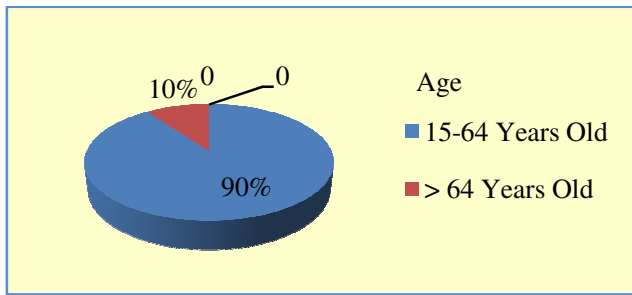


Figure 1. Characteristics of farmer respondents based on age

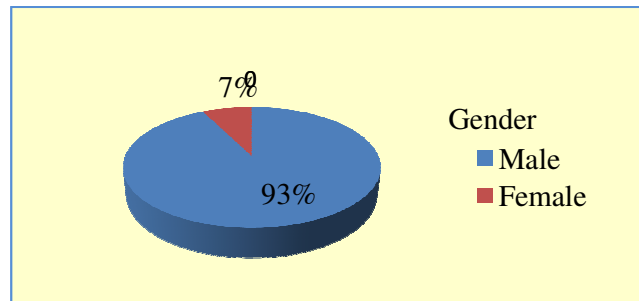


Figure 2. Characteristics of farmer respondents based on gender

Age is one of the possible factors that influence the business of cattle cow milk. The ability to physique somebody will reduce along with increased age as well as the ability to absorb information. Fauzan (2015) ability to work usually will increase in line with increasing age until the limit is certain, next abilities possessed will tend to decrease. The older age breeder's energy and productivity will decrease which can influence to income received. Someone who is age younger tends will own ability physique stronger than older age old. Age breeder can influence productivity somebody Because tightly connected with the ability to work and patterns think in determined form as well as pattern implemented management in business. (Irwan, Dadan and Heri, 2020).

B. Characteristics Breeder based on Gender

In business cattle cow milk, one factor that has a share can influence performance from business cattle cow milk which is the breeder's gender. Gender's role can influence the success business of cattle cow milk Because Lots involve physical and energy. Characteristics of breeder Subdistrict Kalipare, Bantur, and Gondanglegi based on type sex can be seen in Figure 2.

Figure 2 shows the amount breeders man as much as 93%. Breeder men dominate the business farm cow milk at three subdistrict locations study caused Because men own strength more physically big compared to women. In running a business cattle cow milk more involve physical and energy like looking for grass, transporting feed, clean the pen until the nurse cow needs strength extra can reach the maximum result. Dominated by him breeder manifold man gender. Regardless none of the views of business cattle cows are considered cash cow heavy. Besides that, tasks are rude things to do to fulfill needs Cows also need power from man. Role men also which is underwriter burden families to look for living be one reason. For breeders of various genders women in the third Subdistrict location study operate business cattle cow average milk is business down hereditary and must continue the business that was left behind by his deceased family.

This follows Andarusworo (2020) stated that gender is influential in every decision breeder to operate a business raising livestock. gender describes how much capable work is carried out by breeders. The business farm is mostly done by men k arena men are defter than women. Hastuti, Renan, and Muamar (2018) stated some women work hard business cattle cow milk based on various type factors, including continuing business left by their husbands who passed away, apart from there is a female breeder who works mainly as breeders due to their husbands' work in field other.

C. Characteristics Breeder Based on Education Level

Education level is one possible factor that influences a person's process of making a decision included in determining work. Education level can influence the level of skills, someone, when somebody owns more knowledge so will own more skills systematically. Education level can also be done to help breeders in developing business, management efforts, and improve production. Nurdiyansah, Dadang, and Heri (2020) stated that One's education reflects indicators ability to finish some type of work and responsibilities. Education is needed in operating something business No exception in operating business cattle. Adequate education can help the public in the effort to enhance the production of livestock and capabilities management of business farms.Characteristics breeder based on level education listed in picture 3.

influence business success where education influences mindset, attitudes, and abilities on livestock business productivity. Education is the process of developing a person's knowledge and attitudes in a planned manner, which will form insight into an object that will ultimately lead to decision-making. The higher a person's level of education, the more their quality will increase, and conversely, the lower their level of education, the lower their quality in terms of knowledge, skills, attitudes and insight, development of reasoning power, and analysis (Mayamsari dan Mujiburrahmad, 2014).

D. Characteristics Breeder based on Work

Work undertaken by the breeder divided becomes 2: work main and work side. Work main sample study is part big as breeder cow per h according to Figure 5 as much as 86.78%, of animal husbandry dairy cows in the countryside are one source economy in society. Simamora (2020) stated that farm-managed dairy cows in a way Good will give income and increase well-being. Livestock business dairy cows will succeed when capable give contributions for enhancement source income family.

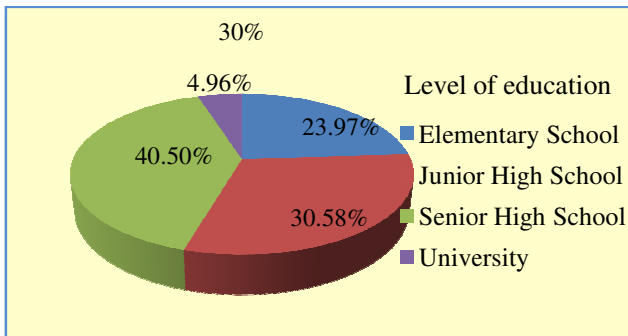


Figure 3. Characteristics of farmer respondents based on education

Figure 3 shows that the percentage of highest-level education breeder cow dairy in Malang Regency in particular Subdistrict Gondanglegi, Bantur, and Kalipare that is high school graduates amounted to 40.50%. Breeders in Malang Regency continue their education until college because constrained by costs.

The higherthe breeder's education the easierthe breeder to receive innovations, and new technologies, more skilled in managing business livestock, and well as more organized in managing business livestock. This is followingMakatita et al. (2014) stated that educational factors are very influential in terms of acceptance of innovation. This is the same as the opinion of Maryam et al. (2016) that education is one of the factors that

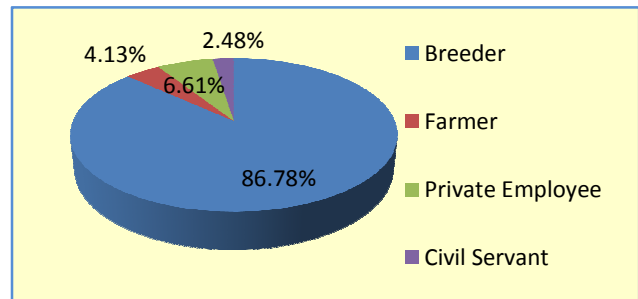


Figure 4. Characteristics of farmer respondents based on occupation

The work side is work reserves you have someone, usually work this side is pursued somebody if income main job is considered Not yet sufficient basic needs, n however, work is not uncommon this side has correlation supporter for work main. Kharismafullah (2022) stated that public rural. No can be separated from activity agriculture and animal husbandry Because the two

work as the source of income main and become two possible work each other supports the other that is with utilize a source of power agriculture as a source of feed good forage and hay resulting in agriculture as a supporter To use fulfillment feed cattle whereas source power on the farm that becomes lead come back or support For field agriculture is utilized waste or dirt cattle as fertilizer compost. Following is the employment data side of the sample study.

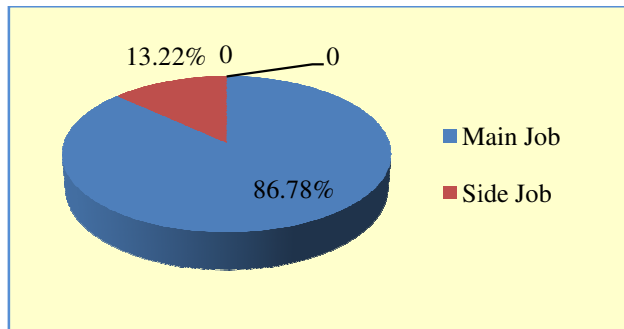


Figure 5. Characteristics respondents the breeder who made it breeder as work main and work side

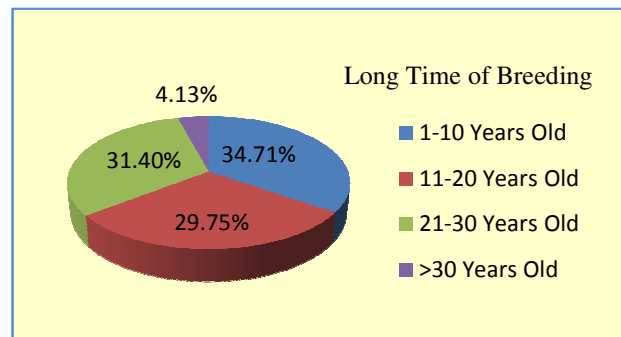
Work as breeder cow milk according to the data in Figure 6 is work side the most amounting to 86.78%. Communities in 3 sub-districts choose breeder as work main or work side Because industry dairy role is important in fulfilling the intake of the best nutrition and nutrition for consumed by the public. Cattle business milk own potency for developed due to its high-rate request public of milk and products its derivatives from year to year. However not every breeder owns a work side and more choose to hang life from business cattle cow milk, though the amount between breeders who own a work side and those not own a work side is almost equivalent, p indicates exists independence sample towards one business.

E. Characteristics Breeder based on Experience Breeding

Experience or length of farming can become considerations in determining the management capabilities of livestock and determining the level

of success something business animal husbandry (Nurdiansyah, et al, 2020). Hastang (2014) also states matters similar such as experience raising a long time will give provisions knowledge and skills in managing business livestock. Experience raising can make guidelines adjustments to problem business his livestock upcoming. How long experience raising give effect positive that is breeder more careful in taking decision. Experience data raising can be seen in Figure 6.

Figure 6. Characteristics of respondent's breeder based on length of breeding



Experience raising own influence in decision making farmer's decision related with the business his livestock. Based on Figure 7, the experience raising the oldest (>30 years) was 4.13% (5 people) in the sub-district Gondanglegi as many as 4 people, and District Bantur as much as 1 person. In the District Kalipare yet there is a breeder with experience raising more than 30 years. Experience 31.40 % (38 people) have been raising livestock for 21 - 30 years, of which there are 16 people in the District Bantur and there are 22 people in the District Gondanglegi. Experience livestock farming 11 – 20 years amounting to 29.75% (36 people) spread across 3 sub-districts; Subdistrict Kalipare as many as 4 people, District Bantur 13 people and District Gondanglegi as many as 19 people. The data above also shows amount breeders with experience raising between 1 – 10 years with the greatest number between 3 scales others, viz amounting to 34.71% (42 people) spread across the three subdistricts in a way evenly, that is each as many as 14 people.

The longer the experience raising livestock, breeder more responsive to face problems in the business of his livestock. Riyanto (2013) stated that adequate experience and education will increase the horizon of understanding principles of technical and principal economics to condition somebody to succeed in business farm cow milk. Kharismafullah et al., (2022) stated experience raising livestock is a lot of capital Good for activity business farms, where experience increases innovation in the field of husbandry and management business to more direction. Although in principle required support and attention from all parties in the development business farm.

F. Characteristics Breeder based on Ownership Cattle

Ownership of cattle lactation is one of the important factors in the business of cattle cow milk. Cattle lactation influences income from the breeder due to lots of milk is produced so the income of breeder the increases. The amount of cattle lactation every breeder is different. Lots of it is cattle cow-reared females not ensured cattle I have lots of lactation. Cattle lactation is when cattle cow females already parturition and middle produce milk for the calf until a normal dry period of 10 months. Al-Amin, Madi, and Sri (2017) stated that the normal lactation period is normal in cows' milk is 10 months. Length of lactation that exceeds 10 months is not enough Good Because can lengthen the calving interval. The number of ownership cattle lactation breeders can be fully listed in Figure 7.

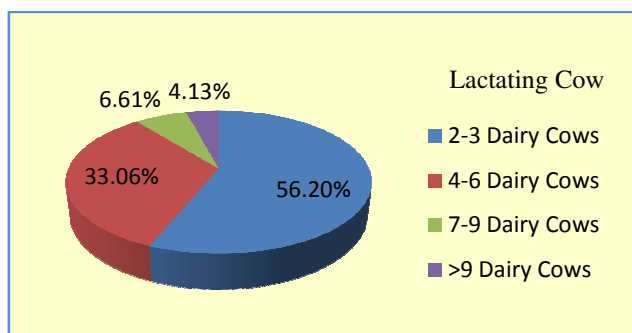


Figure 7. Characteristics of respondent's breeder based on ownership of cattle

The data in Figure 7 shows amount breeders who own cow lactation 2-3 heads show the greatest number namely 56.20% (68 people); spread across the District Kalipare as many as 8 people, District Bantur 18 people and District Gondanglegi as many as 42 people. The ownership of cow milk lactation as many as 4-6 tails 33.06 % of breeders (40 people); 8 people in the District Kalipare, 19 people in the District Bantur, and 13 people in the District Gondanglegi. Subdistrict Bantur is a subdistrict with amount breeders who own cow lactation more of the top 10 is about 3 people followed by Subdistrict Gondanglegi as many as 2 people.

The amount of ownership the cow lactation in the study used for grouping respondents following the amount of cattle lactation that you have so you can see income generated by farmers Because the more Lots breeders own cow lactation the more income the increase. Anindyasari et al (2019) stated that the amount of cattle lactation important factor in the business of cattle cow milk. Amount cattle scanty lactation so the resulting revenue is not big due to the results milk production is crucial big reception cattle cow milk lactation.

CONCLUSIONS

This research groups breeder cow dairy in the District Bantur, Gondanglegi and Kalipare based on six characteristics such as age, breed gender, education, occupation, experience breeding, and ownership of cattle. Characteristic results breeder cow milk at three sub-districts on the plains low regency poor based on age 90 % are aged productive that is aged 15 to 64 years are the majority manifold men gender, that is reached 93% of the total breeders' cow milk at three subdistricts. The level of education breeding cow milk for known high school graduates is only 40.50% because constrained by costs. Characteristics breeder based on work, some big depend on breeder as work main such as amounting to 86.78% with experience raise the most is for 11-20 years with the percentage of 29.75% of whole amount breeder in three subdistricts. For ownership of livestock, found results the most with ownership of 2-3 heads, amounting to 56.20%.

ACKNOWLEDGMENT

I would like to express my deepest gratitude to the chairman and members of KUD Gondanglegi, KUD Satya Dharma and KUD Margomulyo in Malang Regency who have helped and cooperated during the interview process and data collection of the research, so that this research can be completed. My gratitude also goes to the lecturers who have guided and directed me during the writing of this journal, as well as my parents and siblings and friends for their prayers and support during the writing process.

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