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General Situation, Problems, and Solution Proposals of Village Poultry in Uşak Province*

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ABSTRACT

This study was carried out in order to reveal the current situation of village poultry in Uşak and to determine the important problems encountered in breeding. The material of the study consisted of 125 survey data obtained from 25 different villages in Uşak. At the end of the study, it was seen that 79.2% of the breeders were under the age of 60. 72.8% of the breeders stated that they preferred local breeds, and the majority of them did not use additional lighting, heating, and ventilation. The main problems are disease, feed prices, lack of shelter, and marketing. Supporting the main problems of breeders with various support and incentive packages can contribute to the sustainability and development of village poultry in Uşak.

Uşak İli Köy Tavukçuluğunun Genel Durumu, Sorunları ve Çözüm Önerileri

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ÖZ

Bu çalışma, Uşak, ili köy tavukçuluğunun mevcut durumunun ortaya konulması ve yetiştiricilikte karşılaşılan önemli sorunların tespit edilmesi amacıyla yapılmıştır. Çalışmanın materyalini; Uşak'ta köy tavukçuluğunun yaygın olduğu köylerde üreticilerden elde edilen 125 adet anket verileri oluşturmuştur. Çalışma sonunda yetiştiricilerin %79.2'sinin 60 yaş altında olduğu görülmüştür. Yetiştiricilerin %72.8'i yerli ırkları tercih ettiklerini, büyük çoğunluğu ek aydınlatma, ısıtma ve havalandırma kullanmadığını belirtmiştir. Başlıca sorunlar; hastalık, yem fiyatları, barınak yetersizliği ve pazarlamadır. Çeşitli destek ve teşvik paketleriyle yetiştiricilerin başlıca sorunlarına destek sağlanması Uşak ilinde köy tavukçuluğunun sürdürülebilir olmasına ve geliştirilmesine katkı sunabilir.

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Introduction

Hens constitute approximately 99% of the total poultry stock in Turkiye (TUIK, 2023). The poultry sector has been one of the most successful sectors in agricultural production, where modern breeding activities can be applied at every stage of production. Sarıca and Türkoğlu (2004) stated that the demand for hen eggs and meat increased in parallel with the urbanization and population growth in the 19th century, and thus the capacities and numbers of the enterprises producing hens increased. At this point today, it has been possible to reach advanced levels in genetics and molecular biology and to produce high-yield hybrids with breeding research in biochemistry, microbiology, immunology, etc. The developments in the fields of science have enabled the creation of more successful intensive production systems. Thus, it has been possible to develop cage systems that can accommodate more animals per unit area in poultry farming and it has become possible to develop 90% of intensive egg poultry as cage poultry. With cage poultry, egg production has reached 300-310 per hen, and the feed conversion ratio has been reduced to 2.1-2.3 kg. (Appleby et al., 1992; Simons, 1997; Sheldon, 2000; Şekeroğlu and Akşimşek, 2009).

According to TUIK, 2022 data, the number of poultry in the regions in Türkiye is shown in Table 1, and the number of animals at a provincial level in the Aegean Region is shown in Table 2. In terms of poultry, the Marmara Region ranks first with a production exceeding 141 million, while the Aegean Region ranks second with 102 million animals. The Marmara Region ranks first in meat poultry and accounts for 48% of the total production, while it meets 18% in egg poultry. The Aegean Region supplies 34% of laying hens and 25% of broilers. Approximately 45% of turkey production and 6% of total production in terms of geese are produced in the Aegean Region.

While Afyonkarahisar ranks first with 15 million in egg poultry in the Aegean Region; Manisa has 11 million and İzmir 6.6 million animals. In broiler farming, Manisa ranks first with 30 million units, İzmir with 13 million, and Uşak with 12 million units. Village poultry farming is one of the oldest livestock activities in the world, especially in rural areas. It is also known by different names such as family poultry, garden poultry, and extensive poultry. (İnci et al., 2015). Although the hatchability, egg, and meat yields are low and mortality rates are high in village poultry, it is one of the indispensable livestock activities of rural areas. Generally, the primary purpose of production is to meet the animal protein needs of the family, to give gifts to relatives, and to contribute to the family's livelihood. The village poultry is a means of exchange (material) or a source of income for meeting the family's

protein needs, as well as medicine, clothing, and school needs (İnci et al., 2015). There are some differences between village poultry and commercial poultry, especially in yield.

Table 1. Number of poultry in 2022 by regions (TUIK, 2023)

	Poultry Species					
Region	**Broiler**	**Laying Hen**	**Turkey**	**Goose**	**Duck and Guinea**	**Total**
İstanbul TR1	738.000	793.596	8.986	6.552	5.825	1.552.959
West Marmara TR2	40.777.460	6.250.702	132.409	40.558	62.440	47.263.569
Aegean TR3	63.122.111	37.250.831	1.645.896	84.886	29.891	102.133.615
East Marmara TR4	78.437.668	12.809.256	916.463	53.367	43.758	92.260.512
West Anatolia TR5	11.202.319	15.463.687	54.828	38.992	46.920	26.806.746
Mediterranean TR6	29.426.956	6.330.307	62.686	40.510	52.433	35.912.892
Middle Anatolia TR7	1.486.850	6.655.441	78.512	121.132	29.749	8.371.674
West Black Sea TR8	11.892.379	8.917.462	124.508	102.275	47.684	21.084.308
East Black Sea TR9	129.450	544.350	2.516	10.253	2.162	688.731
Northeast Anatolia TRA	852.764	1.481.206	117.562	690.692	34.301	3.176.525
Middle East Anatolia TRB	12.319.076	3.411.991	126.791	92.447	29.697	15.980.002
Southeast Anatolia TRC	904.766	9.897.498	398.579	103.843	47.597	11.352.283
Total	251.289.799	109.806.327	3.669.726	1.385.507	432.457	366.583.816

Table 2. Number of poultry for 2022 at the provincial level in the Aegean Region (TUIK, 2023)

	Poultry Species					
Provinces	**Broiler**	**Laying Hen**	**Turkey**	**Goose**	**Duck % Guinea fowl**	**Total**
Afyonkarahisar	389.500	14.915.331	41.014	21.407	6.995	15.374.247
Aydın	2.112.260	779.476	24.785	3.032	2.472	2.922.025
Denizli	4.670.186	1.560.157	64.503	5.537	3.039	6.303.422
İzmir	13.210.816	6.644.436	525.798	4.041	3.055	20.388.146
Kütahya	402.000	1.328.194	80.360	33.539	5.292	1.849.385
Manisa	30.361.070	11.278.055	876.216	2.680	1.624	42.519.645
Muğla	0*	516.650	17.126	2.338	4.226	540.340
Uşak	11.976.279	228.532	16.094	12.312	3.188	12.236.405
Total	63.122.111	37.250.831	1.645.896	84.886	29.891	102.133.615

*It was announced as "0" by TUIK.

In the village poultry; It can be said that it is advantageous compared to commercial poultry in that it does not require special equipment for housing, feeding costs, and labor requirements are low. In addition, its other advantages are that it has a low-fatty preferred texture in terms of meat quality features and - it has less impact on the environment.

The main disadvantages of village poultry are; animals remain not immune to diseases due to low levels of health and protection measures. This situation causes high losses and low productivity (Alders and Spradbrow, 2001; Alders and Pym, 2009; Şekeroğlu and Sarıca, 2010).

Although there are negative situations mentioned, village poultry maintains its importance among important alternative livestock activities for rural areas. In Türkiye, village poultry is generally done with traditional methods. Either without any additional feeding, the animal is allowed to roam to meet its own nutritional needs (feeding with small animals such as grazing, insects, worms, etc., food-bread scraps) or additionally, it is fed with grain feeds such as wheat, barley, corn, and factory feed. In Turkiye, the average number of animals varies between 1-10 in traditional village poultry, 10-50 in developed village poultry and 50-200 in intensive village poultry. Hen meat and eggs produced in traditional village poultry are consumed within the family, and women are generally responsible for the care of the animals. Advanced village poultry is carried out by certain families in rural areas, all family members can take care of the animals, and additional income is provided by selling surplus consumption. In semi-intensive village poultry, on the other hand, since the number of animals is high, the care of animals requires additional labor, is carried out as a commercial activity, and is carried out by some families in rural areas. We can summarize the other differences in these three production methods in Table 3. (Riise er al., 2004; Güngördü, 2009; Şekeroğlu and Sarıca, 2010).

Table 3. Differences between traditional village poultry, advanced village poultry, and semi-intensive village poultry (TUIK, 2023)

Traditional village poultry	**Advanced village poultry**	**Semi-intensive village poultry**
-Domestic races	-Domestic race and culture race	-Hybrids
-High mortality	-Medium	-Low
-No additional feding	-Free-roaming + additional feed	-Supplementary feeding as needed
-No vaccination	-Vaccination against Newcastle	-A few vaccinations against illnesses
-No use treatment for diseases	-Rarely treatment	-Complete treatment
-No cage for housing	-Simple structure cage	-With litter floor or cage system
-Egg yield 30-50 pieces egg/hen	-50-150 pieces egg/hen	-250-300 pieces egg/hen
-Weight gain 5-10 g/day	-10-20 g/day	-50-55 g/day

Many studies on village poultry have been carried out in different regions and provinces in Türkiye before (Yurt, 2002; Güngördü, 2009; Şekeroğlu and Akşimşek, 2009; Bayraktar, 2012; Eleroğlu et al., 2014; İnci et al., 2015; İnci et al., 2018; İnci et al., 2019; İnci et al.,

2020). Table 4 shows the presence of poultry for the last 5 years at the district level of Uşak province, which was prepared by utilizing the data announced by TUIK between the years 2018-2022.

Table 4. Number of poultry in Uşak province between 2018-2022 (TUIK, 2023)

		Poultry Species						
Districts	**Years**	**Broiler**	**Laying Hen**	**Turkey**	**Goose**	**Duck & Guinea fowl**	**Total**	**Rate of Change +/- %**
	2018	119.000	12.500	2.400	2.750	350	137.000	-
	2019	119.000	13.100	2.850	3.000	390	138.340	0.98
Banaz	2020	119.001	145.730	6.156	7.162	771	278.820	101.55
	2021	119.000	112.950	2.513	4.664	450	239.577	-14.07
	2022	164.000	28.816	6.900	3.385	350	203.451	-15.08
	2018	6.883.286	218.000	220	110	900	7.102.516	-
	2019	6.850.000	20.000	380	140	780	6.871.300	-3.26
Eşme	2020	7.635.000	32.650	380	160	450	7.668.640	11.60
	2021	7.635.002	30.501	0*	120	320	7.665.943	-0.4
	2022	7.308.159	45.730	12	0*	0*	7.353.901	-4.07
	2018	30.500	30.000	220	210	235	61.165	-
	2019	30.500	27.000	250	180	175	58.105	-5.00
Karahallı	2020	30.500	78.000	650	407	348	109.905	89.15
	2021	119.000	16.200	440	156	256	136.052	23.79
	2022	119.000	6.620	56	202	23	125.901	-7.46
	2018	1.975.368	69.246	1.500	5.000	1.500	2.052.614	-
	2019	1.975.368	69.246	1.500	5.000	1.500	2.052.614	0
Merkez	2020	2.195.154	2.551.543	12.761	14.656	5.821	4.779.935	132.87
	2021	1.439.353	105.064	11.400	13.180	3.640	1.572.637	-67.10
	2022	2.414.810	90.106	8.041	8.285	2.730	2.523.972	60.49
	2018	973.700	10.400	725	530	250	985.605	-
	2019	983.500	10.350	739	515	275	995.379	0.99
Sivaslı	2020	519.501	26.034	680	512	198	546.925	-45.05
	2021	1.124.960	21.125	640	415	158	1.147.298	109.77
	2022	1.413.910	21.200	740	440	85	1.436.375	25.20
	2018	432.400	9.600	650	250	200	443.100	-
	2019	483.156	20.000	640	105	20	503.921	13.73
Ulubey	2020	502.157	533.300	1.270	299	67	1.037.093	105.80
	2021	412.590	21.750	520	130	0*	434.990	-58.06
	2022	556.400	36.060	345	0*	0*	592.805	36,28

*It was announced as "0" by TUIK.

Uşak meets 19% of the region and approximately 5% of the total production with its production approaching 12 million in meat poultry production. More than 60% of broiler breeding is carried out in the Eşme district throughout the province. Laying hen breeding

shows a balanced distribution at the district level. Banaz and Merkez districts counties occurred to stand out in turkey and goose production.

This study, it is aimed to determine the structure and general situation of village poultry in Uşak and to present solutions to the problems by determining the problems faced by the breeders.

Material ve Method

Ethic Committee

This study was conducted within the scope of the decision of Uşak University Scientific Research and Publication Ethics Committee (protocol code: 2023/04-23 and date: 07 June 2023).

Material

The material of the study consisted of questionnaire data filled in face-to-face interviews with 125 producers in 25 villages in 6 districts of Uşak. Before the questionnaire forms were filled, the producers were informed about the questionnaire questions and the study, and after the consent process, the questionnaire questions were answered. After the study area was determined at the district level from the 2022 TUIK data, information about the poultry activities at the village level was collected with the support of the Uşak Provincial Directorate of Agriculture. Belonging to the breeders who participated in the survey; questions were asked about the determination of socio-demographic and socio-economic characteristics, reasons for village poultry breeding, livestock activities, characteristics, diseases seen in chickens, treatment application status, precautions and losses, and information was collected from farmers about village poultry in Uşak.

Method

The questionnaire forms used in the study were prepared by making use of the previously arranged questionnaires on zootechnics and agricultural management. While determining the sample size of the study, a grouped one-stage random probability sampling method based on population ratios was used (İnci, et al., 2020). In determining the sample size, the following formula, which was used in limited societies as reported by Karasar (1994), was used. Accordingly, it has been determined that a survey should be conducted with 125 farmers in Uşak with equality. In Uşak, 10 villages of the central district and 3 villages in

Banaz, Ulubey, Sivaslı, Karahallı, and Eşme were reached, and face-to-face survey questions were answered with a total of 125 breeders.

Formula
n=(z 2 *N*p*q)/(N*d 2 +z 2 *p*q)
n: Sample volume
z: "z" table value corresponding to 95% significance level
N: Number of main masses
p: The probability of occurrence of the investigated event in the main mass is taken as 50%
q: The probability that the investigated event will not occur (1-p)
d: Accepted margin of error (In this study, margin of error was taken as 5%)

Statistical analyzes

The study, it is aimed to present the village poultry activities carried out in Uşak, the demographic structure and educational status of the breeders, the problems related to the sector, and the solutions to the problems encountered. The data of the study were evaluated in the SPSS 16.0 package program and expressed as descriptive statistics and percentage values.

Result and Discussion

The socio-demographic characteristics of the breeders who participated in the survey in the study area are shown in Table 5. 57.6% of the breeders participating in the survey were male, 42.4% were female, 87.2% were married, and 83.2% of them declared their profession as farmers. The priority order of the breeders in agricultural activities was 48% field agriculture, 38.4% horticultural agriculture, and 9.4% animal husbandry. In a study conducted in Batman, it was reported that 52.6% of the breeders were engaged in field agriculture (Güngördü, 2009). In previous studies, it was reported that 75.7% in Bingöl, 84.9% in Muş, 84% and 24% in Diyarbakır and Tekirdağ were male, respectively (Demirulus et al., 2013; İnci et al., 2015; İnci et al., 2020). İnci et al., (2020) stated in their study in Muş that 87.5% of the breeders are married and 49.3% are free-employed, while Bural (2015) states that 59.5% of the breeders in Bingöl are farmers declared that.

Considering the age distribution, it was seen that the rate of breeders under the age of 60 was 79.2%, which gives hope for the development and sustainability of village poultry in Uşak. It has been reported that 68% of the breeders in Diyarbakır and Bingöl are under the age of 50, and the average age is 44.09 in Muş (İnci et al., 2015; İnci et al., 2019; İnci et al., 2020). In terms of education level, it was determined that 67.2% of the breeders were primary school graduates, and 80.8% of the households consisted of 1-6 people. While it was reported that 73.2% of them were primary school graduates in Batman, it was stated in the studies

conducted by Muş and Bingöl that most of the breeders were illiterate (Güngördü, 2009; Bural, 2015; İnci et al., 2020).

32.8% of the breeders' state that poultry, 27.2% sheep, and 20% cattle make up a large part of the animal's existence. Among the poultry, the hen took first place with 61.6%, while the rate of geese was 28%. While 78.4% of the breeders preferred laying hens, it was determined that 72.0% of the breeders stated that they were breeding to meet the family's needs. While 17.6% stated that the products produced were given as gifts, 12% stated that they sold them. 42.4% of the farmers stated that they obtained 100-150 eggs in a year, and 67.2% of them stated that they obtained meat between 1-5 kg.

Table 5. Socio-demographic characteristics of breeders

Age	**Family (n)**	**N.F. (%)**	**Education**	**Family (n)**	**N.F. (%)**	**Number of individuals**	**Family (n)**	**N.F. (%)**
18-39	15	12.0	Illiterate	2	1.6	1-3	32	25.6
40-59	84	67.2	Primary	84	67.2	4-6	69	55.2
60-80	23	18.4	Secondary	19	15.2	≥7	24	19.2
>80	3	2.4	High	15	12.0	-		
-			University	5	4.0	-		
Gender	**Family**	**N.F.**	**Marital status**	**Family**	**N.F. (%)**	**Job**	**Family**	**N.F. (%)**
Man	72	57.6	Married	109	87.2	Farmer	104	83.2
Woman	53	42.4	Single	16	12.8	Retired	13	10.4
-			-			Self-employment	8	6.4
Total	**125**	**100**	**-**	**125**	**100**	**-**	**125**	**100**

n: Number of families surveyed, N.F: Relative frequency

The business characteristics of the breeders participating in the survey are shown in Table 6. At the end of the study; Most of the breeders prefer native breeds (72.8%) and obtain their animals through natural hatching (67.2%). The results of the study were found to be in harmony with the study conducted by Bayraktar (2012) in Artvin. In the study conducted in Tokat, 96.3% of the breeders, 74.9% in Bingöl, and 68% in Batman stated that they obtained it by natural hatching, and the findings of the study were similar to the study carried out in Batman (Akşimşek, 2008; Güngördü, 2009; İnci et al., 2015). It was determined that men (79.2%) played a role in the construction of the shelter and women (82.4%) in the animal maintenance, the animals were generally kept together, and the soil was preferred in terms of roaming areas. The results of the study were found to be partially different from the study conducted in Batman, in harmony with the study conducted in Muş (Güngördü, 2009; İnci et al., 2020). While more than half of the breeders preferred plate-type feeders and drinkers in the poultry houses, the rate of those who stated that they did not use feeders and drinkers was

34.4% and 26.4%, respectively. The nesting-box usage rate is around 74.4%. Most of the growers stated that they do not use additional lighting (78.4%), heating (84.0%), and ventilation (91.2%). While the cleaning of the shelters was carried out on a weekly basis (68.0%), the rate of those who stated that they applied disinfection to the henhouses was 64.8%. It has been observed that the findings obtained as a result of the study are in harmony with many studies and differ partially from some of them (Güngördü, 2009; İnci et al., 2015; İnci et al., 2020).

Tablo 6. General characteristics of village poultry enterprises

Breeding race	**Family (n)**	**N.F. (%)**	**Animal supply**	**Family (n)**	**N.F. (%)**	**Shelter making**	**Family (n)**	**N.F. (%)**
Domestic	91	72.8	Market + neighbor	28	22.4	Mother	11	8.8
Culture	13	10.4	Natural hatching	84	67.2	Father	99	79.2
Mixed flock	21	16.8	Market + hatching	13	10.4	All family	15	12.0
Roaming area	**Family (n)**	**N.F. (%)**	**Shelter type**	**Family (n)**	**N.F. (%)**	**Disinfection**	**Family (n)**	**N.F. (%)**
None	24	19.2	Separate cage	32	25.6	Not applicable	44	35.2
Soil	70	56.0	Single cage	93	74.4	Lime 1 a year	38	30.4
Concrete	31	24.8	-			Lime 2 a year	33	26.4
-			-			Other methods	10	8.0
Care	**Family (n)**	**N.F. (%)**	**Manger Type**	**Family (n)**	**N.F. (%)**	**Drinker type**	**Family (n)**	**N.F. (%)**
Mother	103	82.4	None	43	34.4	None	33	26.4
Father	12	9.6	Plate type	67	53.6	Plate type	72	57.6
Kids	10	8.0	Nipple type	15	12.0	Nipple type	20	16.0
Additional lighting	**Family (n)**	**N.F. (%)**	**Additional lighting**	**Family (n)**	**N.F. (%)**	**Additional ventilation**	**Family (n)**	**N.F. (%)**
None	98	78.4	None	105	84.0	None	114	91.2
Available	27	21.6	Available	20	26.0	Available	11	8.8
Total	**125**	**100**	**-**	**125**	**100**	**-**	**125**	**100**

n: Number of families surveyed, N.F: Relative frequency

The feeds used by the breeders in feeding, feeding time, diseases seen in chickens, precautions, and mortality rates are shown in Table 7. It was observed that mixed feeding consisting mostly of grain feeds and bread-meal residues was adopted (60.8%) and the rate of those who stated that they fed the animals morning and evening was 71.2%. In previous studies, the proportion of those who used mixed feeding was 73.4% in Muş, 36% in Batman, and 34.3% in Tokat, while in the study conducted in Sivas, 89.9% of the breeders stated that they used the most wheat in feeding (Güngördü, 2009; Şekeroğlu and Akşimşek, 2009; Eleroğlu et al., 2014; İnci et al., 2020).

Almost all of the breeders in Muş and Bingöl stated that they do the feeding process twice a day, morning and evening, and the findings of the study differed partially from these two studies (İnci et al., 2015; İnci et al., 2020). While the incidence of disease in animals was 79.2%, diarrhea and Newcastle disease were the most common diseases with 48.5% and 33.3%. 67.2% of the breeders stated that they could not take any precautions and that the diseases increased mostly in the winter-autumn periods. After the diseases, 60.8% of the breeders stated that less than half of the herd was dead. In the study conducted by İnci et al. (2020) in Muş, 81.7% of the breeders stated that animals had diseases. 27.5% of breeders suffered from diarrhea and 22% of them suffered from viral diseases. In the related study, 49.5% of the breeders reported the highest incidence of disease in winter, 29.4% in autumn, and 56% reported that more than half of the animals were dead.

In the study conducted in Bingöl, the rate of those who stated that all animals died was 53.2%, while 8.3% stated that less than half of them died, and the study findings were different from the two studies (İnci et al., 2015). In the studies carried out in Tokat, while Akşimşek (2008) stated that 86.3% of the breeders applied a treatment method against diseases, Şekeroğlu and Akşimşek (2009) reported that all breeders could not make any vaccine to protect chickens. Güngördü (2009) stated that 62.9% of the breeders in Batman, and İnci et al., (2015) 75% of the breeders in Bingöl could not take any precautions against diseases. It was observed that the study findings were between the values found in these two studies.

Table 7. Nutrition of hens, diseases observed, precautions taken and mortality rate

Preferred feed	**Family (n)**	**N.F. (%)**	**Feeding time**	**Family (n)**	**N.F. (%)**	**Seen diseases**	**Family (n)**	**N.F. (%)**
Wheat	25	20.0	Morning	18	14.4	Diarrhea	48	48.5
Maize	12	9.6	Night	13	10.4	Newcastle	33	33.3
Barley	8	6.4	Morning-night	89	71.2	Cholera	8	8.1
Mixed	76	60.8	Tree meals	5	4.0	colibacilli	7	7.1
Industrial feed	4	3.2	-			Hen pox	3	3.0
Taken measures	**Family (n)**	**N.F. (%)**	**Periods of illness**	**Family (n)**	**N.F. (%)**	**Post-illness death**	**Family (n)**	**N.F. (%)**
None	84	67.2	Winter	74	59.2	Less than half	76	60.8
Antibiotic	25	20.0	Spring	13	10.4	Half	34	27.2
Drug-vaccine	16	12.8	Summer	7	5.6	Whole herd	15	12.0
-			Autumn	31	24.8	-		

n: Number of families surveyed, N.F: Relative frequency

The opinions of the breeders about the problems experienced in village poultry and village poultry are shown in Table 8. The breeders stated that the meat and eggs they obtained were not sufficient for them and that they obtained the rest of their needs from the markets. While 84% of them declared that they did not receive any training during breeding, the rate of those who stated that the training provided would not be sufficient was 68.8%. While diseases and feed prices were the first two problems with 51.2% and 30.4%, the inadequacy of shelters and marketing were reported as other problems. The findings of the study were found to be in agreement with the study conducted by İnci et al., (2020) in Muş.

Table 8. Opinions of breeders about village poultry

Egg-meat adequacy	Family (n)	N.F. (%)	Education support status	Family (n)	N.F. (%)	Basic issues	Family (n)	N.F. (%)
Sufficient	33	26.4	No	105	84.0	Illness	64	51.2
Market	92	73.6	Agriculture Dep.	15	12.0	Feed prices	38	30.4
-			University	5	4.0	Shelter problem	13	10.4
-			-			Marketing	10	8.0

n: Number of families surveyed, N.F: Relative frequency

Conclusion

Uşak is an important province of the Aegean Region that draws attention, especially to meat poultry production in terms of the presence of poultry. According to TUIK 2022 data, with broiler production approaching 12 million, it meets 19% of the region and approximately 5% of the total production. It is also the 3rd province after Kütahya and Afyonkarahisar in goose production and is suitable for poultry breeding. Besides commercial poultry farming, village poultry farming is one of the important alternative livestock activities traditionally carried out by farmers. Almost all of the breeders stated that they do village poultry farming to meet their egg needs and that the demand for backyard hen eggs is high and they earn additional income, especially today when the concept of organic eggs has become widespread. While the majority of breeders complained about diseases and feed prices, insufficient shelter was one of the major problems. They also reported that they had problems in the sale of the products or that they could not sell them at their worth, and that they also received complaints that the animals harmed the agricultural products of their neighbors.

In light of the information obtained from the study, the following suggestions for sustainable village poultry farming in Uşak can contribute to the solution of the problems.

- As in Türkiye, village poultry farming is carried out by women in Uşak. Especially "Uşak University, Uşak Provincial and District Directorates of Agriculture" should organize various seminars and training courses on disease, care, and feeding.
- A cooperation protocol should be arranged between the Municipality and the Provincial Directorate of Agriculture in order to deliver the products obtained to the primary consumer without any loss of value. Sales places should be provided to breeders to sell their products comfortably. This situation may increase the demand for village poultry and may lead to the transformation of village poultry from traditional village poultry to advanced village poultry in a short time, and then to intensive village poultry.
- Adequate level of veterinarians and health personnel should be employed within the body of the Provincial Directorate of Agriculture. By providing vaccine and treatment support, infectious diseases can be prevented before they turn into epidemics.
- It should be ensured that breeders are organized with cooperative-like formations, and they should be encouraged to act together to quickly solve common problems.
- Incentive packages should be prepared for the sustainability of village poultry in the annual budgets of the state, and the applications to be made through the Provincial Directorates of Agriculture and village headmen should be announced to the farmers.

There are a limited number of research and project proposals on the structure, problems, and sustainability of village poultry in Türkiye. The development of village poultry can provide opportunities to increase the family economy and welfare level of the rural population. Thus, when the intensive village poultry production model is adopted, the number of organic eggs and hen meat will increase and it will also contribute to the country's economy.

Conflict of Interest Statement

The authors of the article declare that there is no conflict of interest between them.

Contribution Rate of Researchers Statement Summary

The authors declare that they have contributed equally to the article.

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