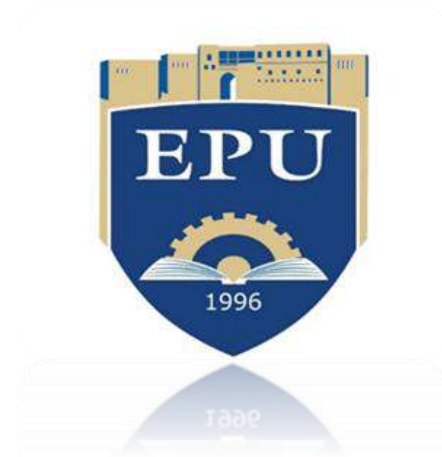


Ministry of High Education and scientific research
Erbil polytechnic University
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Second Stage



PROBLEM PREVENT TO IMPROVING POULTRY PROJECT IN ERBIL CITY

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2023

Supervisor approval

I certify that this research decree (Problems and Obstacles to Develop Poultry Projects in Erbil City)

Submitted by students: Hogir Luqman Hamad, Khatun hassan khidir and
Ahmad Salam Asaad

It took place under my supervision at the Technical Institute / Shaqlawa as part of the requirements for obtaining a diploma in veterinary medicine.

Signature:

Name: Assistance proff.Dr. Hassan Abdullah Mohammed

Date:

Based on the available recommendations, I recommend the research for discussion.

Signature:

Head of Department:

Date:

Approval of the discussion committee

We, the undersigned members of the Discussion Committee, certify that we have read this decree

(Problems and obstacles to the development of poultry projects in the city of Erbil)

Submitted by students: : Hogir Luqman Hamad, Khatun hassan khidir and

Ahmad Salam Asaad

We have discussed with the students its contents and what is related to it as part of the requirements for obtaining a diploma in (veterinary medicine), and we found that it fulfilled the requirements of the certificate, and therefore we recommend that the research be accepted with a grade..... .. .

Head of Committee

Member

Member

ABSTRACT

Agricultural projects help to create immediate and substantial development, effectively contribute to the absorption of labor, reduce the need for imports and open the door to industrialization. The poultry industry has suffered and continues to suffer from severe deterioration, and little progress has been made since the battle of bird flu. The demolition conditions could have been used for new construction on solid ground. Unfortunately, this has not happened so far. The country in the wake of the emergence of the turmoil and the financial crisis that surrounded the Kurdistan of Iraq to deepen the crisis as a result of the state of continuing severe neglect.

In our opinion, the most important thing to keep domestic poultry production and not to eliminate it is the continued existence of an appropriate but uneven volume of demand during the past years, and not to be strongly attracted to the importer as it was thought "despite the reduction of customs to only 4% with exemption Imported from the Arab countries "0%, and is a solution to the nature of domestic consumption, which is not very desirable importer, unlike the customs of other people's such as the Gulf, because of the different lifestyle, depending in large part on imported meat.

The study identified the following points that hinder the development of the poultry industry in Kurdistan

.1Geographical location The geographical location of the site has a significant effect on the establishment of poultry fields, which is reflected in the reduction of the cost of the easy access to these fields in terms of processing and supply or marketing operations because of the villages and rural areas in this province lack of services, especially paving some of the main roads And the sub-leading to these projects.

.2Climate The natural factors have a significant impact on poultry production. The climate is one of these important factors. Poultry production requires optimum temperatures in the breeding halls. This is not only reflected in regions with high temperatures and even low temperatures. So producers tried to find various ways and means of conditioning from cooling or heating in order to maintain appropriate temperatures in the halls of education.

.3Transport Transportation is one of the factors influencing the success of poultry projects because of the impact of the rapid access to the production of these projects to the consumption area as the products of this industry was exposed to rapid damage

in the delay in transport as well as the inability to transport supplies of feed and vaccines. Drugs at appropriate times lead to a reduction in production.

4. Housing Poultry is an important and influential factor in the production of poultry. They vary in size and size of these housing depending on the quality of education and depending on the number of birds, which vary according to the purpose of education, such as may be for the purpose of production of eggs or meat production takes into account the construction of these housing.

5. Feeding It has been noticed that the purchases of field fodder are mostly from the state and the private laboratories as all the poultry fields deal with the state previously in the purchase of their feed, but some of these fields have resorted to meet their needs of feed from the private sector at commercial prices.

List of contents

	Topic	page
1	supervisor approval	A
2	Approval of the discussion committee	B
3	Abstract	C
5	List of Contents	D
6	List of figures and tables	F
8	1.Introductio	1
9	Chapter Two Types of productive poultry fields	6
10	2-Types of poultry production fields	6
11	1.2 Raising laying hens for egg production	6
12	2.2 Selection of global production lines	6
13	2.3 Composition of the egg production flock	7
14	2.4 Health care	10
15	2.5 A brief overview of the most important diseases affecting poultry	12
16	2.6 Breeding broiler chickens	15
17	Chapter Three Poultry Projects in Erbil Governorate	20
18	3-1 Factors Affecting Poultry Production in Erbil Governorate	21
19	3-1-1 Geographical location	21
20	3-1-2 Climate	22
21	3-1-3 Transportation	22
22	3-1-4 Housing	23
23	3-1-5Nutrition	24
24	3-2 Developing poultry projects during the period 2003-2017	25
25	3-2-1 production	26
26	3-2-2 Possibility of developing projects for the poultry industry in Erbil	26
27	3-2-3 Government support and banking facilities policy	26
28	4. Recommendation and conclusion	31
29	4-1 Recommendation	31
30	4-2 conclusion	37
31	5. References	41
32	پوخته	44

List of Figure

	the Figure	page
1	Figure (1) Types of laying poultry strains	12
2	Pictures of an avian influenza infection	13
3	Fash bug	14
4	A full gizzard	16
5	An open poultry hall	20
6	Broiler housing	23

List of tables

Table number	Name Table	Page
1	Vaccination program for laying hens	11
2	Preventive treatments for chicks under the supervision of a specialist veterinarian	16
3	Drinking water needs for meat farms per day in liters for 1000 birds	17
4	Consumption of the amount of feed required for broiler chickens and the net weight of chicks in weeks	18
5	Consumption of the amount of water required for laying hens per day per 1000 bird	18
6	Calculating the costs of the broiler farm project and the economic feasibility	19
7	Heat needs in poultry farming according to the age of the birds	22
8	Statistical fields in Erbil	30

1. Introduction

The poultry industry is one of the profitable industries throughout Iraq, but it has not reached the global level now due to the deterioration of economic conditions, and this leads to a lack of development and improvement in terms of administrative requirements and productivity performance. And our country is one of the countries that has not developed after the past twelve.

Agricultural projects help bring about immediate and large development, contribute effectively to the absorption of labor, reduce the need for imports, and open the door towards industrialization. The poultry industry has suffered and continues to suffer from severe deterioration, and little progress has been made after the battle of bird flu. It was possible to exploit the conditions of demolition to build a new building on solid ground, but unfortunately this has not happened so far. The country is relatively in the aftermath of the emergence of ISIS and the financial crisis that surrounded Iraqi Kurdistan, to the deepening of the crisis as a result of the continuing state of extreme neglect.

In our opinion, the most important thing is to maintain the continuation of poultry production locally and not eliminate it completely, is the continued presence of an appropriate volume of demand, albeit in varying degrees during the past years, and not to be strongly attracted to the importer as it was believed, "despite the decline in customs to only 4% with exemption The importer from the Arab countries is "zero percent", and it is considered a solution to the nature of the local consumer who does not like the importer to a large extent, unlike the customs of other peoples such as the Gulf, due to the difference in lifestyle, as it depends in large part on imported meat.

It is evident from the price comparison of poultry and eggs over the past 8 years, in this sector, especially during the past two years.

Livestock represents an “essential” pillar in the agricultural economy of developing and developed countries alike, and it is in line with population growth and the increased need for energy and protein sources to meet human needs for nutrients necessary for the continuity of his life, and this is what poultry meat provides, as is the case with other agricultural animals. The number of broiler fields in the Erbil Governorate in the Kurdistan Region reached (311) fields, with a production capacity estimated at about 3.5 million chickens for the year 2005. * However, this number is not sufficient to meet the local need because the importance of this meat is determined to a large extent by the amount of heat energy given, and poultry meat is rich in With protein substances, which constitute 20-21% of them, and thus poultry meat occupies the first place among other meats used by humans (Mahmoud, 1988). As poultry in the past were fed unaccounted for and as agreed upon by the breeder, but now the picture has changed and poultry feeding has become a science based on advanced scientific foundations and studies (Maqled 2004, 1). And the process of producing eggs and poultry meat, which represents a tenth of the global production of animal food products, and the per capita share of eggs and poultry meat is one of the important indicators of the extent of the well-being and advancement of peoples and nations (Rose, 1997). Recently, studies have developed on finding energy alternatives and reducing the economic cost of raising broiler chickens, including the cost of feeding, which constitutes 55-75%

(Ensminger¹ and his colleagues, 1990) and (Al-Hedmi, 1994). The genetic improvement of strains and hybrids that were raised in Iraq had a role to play in that (Mahmoud, 1988). From 3.25 to about 1.68 in the year 1999, and this means reducing the amount of feed needed to produce one unit of weight gain from live

weight by approximately 50%" (Naji and Ahmed, 1985). , oils) in poultry feed, which showed high efficiency in terms of its effective effect because it is a very "rich" source of energy and increases the energy level twice as much as carbohydrates and protein provide us, as the bird cannot absorb quantities of food in its limited digestive capacity.

The FAO estimated in 2002 that there are approximately 16 billion chickens around the world, or a total population of 15,853,900,000. [5]

The numbers from the World Atlas of Animal Health and Production in 2004 were as follows:

1. China (3,860,000,000)
2. The United States of America (1,970,000,000)
3. Indonesia (1,200,000,000)
4. Brazil (1,100,000,000)
5. Pakistan (691,948,000)
6. India (648,830,000)
7. Mexico (540,000,000)
8. Russia (340,000,000)
9. Japan (286,000,000)
10. Iran (280,000,000)
11. Turkey (250,000,000)
12. Bangladesh (172,630,000)
13. Nigeria (143,500,000)

In 2009 the annual number of chickens was estimated at 50 billion, with an increase of 6 billion in the European Union, 9 billion in the United States of America and more than 7 billion in China.

And in Erbil, it currently contains more than 303 poultry for fattening meat chickens during the little period*. It is known from this period of fattening that good environmental conditions must be found according to the age and needs of broilers within their management to reach the maximum average weight during the short period and at the lowest cost, and for this reason we collected information and took some measurements related to the management of eight poultry breeding broilers to show the errors Admin.

As meat, in its two parts, red and white, is considered one of the basic food products that cannot be dispensed with at all, due to the inability to replace it as an essential food item In the daily human life, the poultry industry is one of the great economic factors that achieve huge profits in the field of meat and egg production, and this industry was characterized by the speed in the production cycle of these projects, which is reflected in the agricultural frugal quickly developing its potential and productive capabilities, as the short period of time for breeding Marketing and production gave this industry importance in the factors of attraction for the owners of agricultural projects, and given its economic and nutritional importance, it led to limiting the state's interest in encouraging these to such projects because it occupies the forefront in the economics of agricultural production and interest in introducing modern technologies in this industry for the purpose of reaching large production in the provision of concentrated fodder And the use of modern machines in carrots, refrigeration, packaging, transportation, market study, consumer demand, and all the possibilities and requirements that lead to the further development of these projects.

The research included two main chapters of the study. The first chapter deals with two chapters, the time frame in 2017.

The study in the second chapter indicates the possibility of developing the performance efficiency of the poultry projects in the governorate of Erbil in order to reach advanced production formulas in this industry that are closer to self-sufficiency through two main sections. The first deals with the policy of government support and banking facilities for this industry. The development taking place in poultry projects in the province through a mathematical statistical study in finding the possibility of reaching the level of self-sufficiency for poultry meat in the province of Erbil for the subsequent future period. The research ends with a number of useful conclusions and recommendations.

The desired goal of the research is to take the characteristics of poultry farming in the Erbil region an advanced position among the rest of the regions, because the conditions of the region are appropriate, as well as the availability of modern technological capabilities and capabilities to develop these projects in order to reach self-sufficiency in the production of meat and eggs. Therefore, we consider the poultry industry in terms of production, including many aspects in terms of breeding, management, marketing, mechanization etc.

* Statistics: - Department of Veterinary Statistics for the year 2005 / General Directorate of Veterinary Affairs / General Authority for Agriculture / Erbil

2-Types of poultry production fields

1.2 Raising laying hens for egg production

For laying hens, egg production comes in the first place, while meat production ranks next, and after eggs, it is one of the most important sources of animal proteins. This age is also affected by the methods of care and feeding that are provided to chickens during their different stages of life until they start producing eggs. Therefore, the production process itself requires high experience in dealing with chickens, whether in the period of incubation of chicks, during the care period, or during the production stage. Laying chickens must be selected during the process. Sorting takes place two to three months after the start of production, selling the sorting product, and maintaining the perfect chicken for the egg production process. In terms of formal specifications, which are appropriate for the length of the breeding period (18 months).

With the length of this period, raising laying hens requires experience, health and preventive care, through which the number of dead (dead) in the farm is reduced. It also requires the provision of feed during this period with optimal utilization of the large farm area (6 laying hens per square meter).

2.2 Selection of global production strains

1. The distance between the two pelvic bones is such that at least 3 fingers can be placed between them, while low production chickens, so this distance is narrower.
2. The distance between the sternum and the two pelvic bones is wide.

3. The pelvic bones are soft and can be easily bent, while they are pointed in low production chickens.

4. The aperture of the collector is wide, light in color, and moist, while the chickens of low production are yellow and dry.

5. The crest of high-production chickens is reddish in color and not dull as in low-production ones. 6 The beak and legs appear dull and light in color due to the consumption of yellow pigment in egg production.

Therefore, before choosing a breed for egg production, the breeder must be aware of the exact movement and requirements of the market in the surrounding area.

2.3 Composition of the egg production flock:

There are two ways to create an egg-producing flock (table):

1- Buying one-day-old chicks:

By obtaining one-day-old female chicks from one of the breeds specialized in the production of table eggs, in this case we do not need to raise males, and these chicks are raised for a period of about 500 days.

The education period is divided into two limited periods:

A - The period from the age of one day to 140 days (20 weeks), which is the growth period and includes the incubation period.

B - The period from 140 days to 500 (about a year (full), which is the production period.

2- Buying broilers 100-120 days old:

Some breeders resort to it to get rid of the dangers of the initial growth period that needs many programs, operations and immunizations that make it one of the most important periods in the life of egg chickens.

The most important notes that must be taken into account when raising laying hens in the first way:

First. The temperature required from the beginning of the breeding period to the production period (egg laying) is 18-20 m.

At the beginning of the production period and during it, five chickens are allocated on the basis of one square meter.

The eves of the eggs are placed so that one eve is allocated for every five chickens. The use of wooden shelves at a height of 5030 cm from the ground.

Second . lighting

The lighting is at a height of two meters, and a 60-watt lamp is used, at a rate of 2 watts per square meter of the hall area, and it gradually increases to 14 hours a day until the beginning of production, then it is gradually increased to 18 hours a day and remains at this rate constant until the end of the production period. Exceeding the above limited limits, the birds during the breeding period cause cases of predation, bird agitation, increased effort and respiratory infections. In the production period (the egg-laying period), the increase in excitement beyond its established limits leads to early laying of eggs, and this leads to an increase in the percentage of small-sized eggs, as well as the intensity of lighting leading to Low production rate.

Third. Nutrition

When the farmer raises poultry in his home, he produces and prepares most of the feed himself, and in this way he does not waste a lot of money, but rather benefits from the leftovers of the family's food and the leftovers of the crops.

However, consideration should be given to providing suitable fodder for his birds, and this means providing poultry feeds that differ according to their ages.

Laying chickens: Laying chickens need a large amount of mineral salts to form the egg shell and a lot of proteins to form the contents of the inner egg. For example, every 10 kg of feed should include:

8 kg of crushed grains (wheat, barley, red and yellow corn).

- 1.5 kg of concentrated feed for laying hens.
- 0.25 kg of a mixture of herbs and vegetables.
- 0.25 kg of crushed shells or egg shells.

Poultry often swallow small pieces of stones that remain inside the gizzard to grind the food when it reaches it. The mixture must be prepared before serving it to the poultry in a short period so that it does not spoil. The feeders and drinkers must be completely clean.

Drinking water sources...

Poultry also needs fodder that provides them with energy (energy fodder) and enables them to resist cold, heat and diseases. Energy fodder is needed at the beginning of the production period and until the production rate reaches 70%, the protein concentration is 18%, after which it decreases to 0. The breeder can produce it himself, and it is mainly composed From yellow corn, red corn, millet, rice, wheat bran, these feeds can be provided in the form of grains or flour, and poultry prefer corn and can consume a large amount of it without being harmed. However, poultry does not benefit well from energy feed and body building feed. If he does not present with it at the same time the following elements: mineral salts, vitamins and pure water.

Mineral salts: Mineral salts are added to poultry feeds at a rate of 2%. Bone powder, shells and egg shells are rich sources of mineral salts. If poultry does not get enough mineral salts, they cannot grow normally and their bones are small and deficient in formation.

Vitamins: If poultry are raised inside barns, vitamins must be added to their feed or provided with grass that contains vitamins. These vitamins are provided in small quantities.

Pure water: Providing an abundant amount of pure water for poultry is very important because poultry do not fully benefit from their food if they do not take a

sufficient amount of water, and one chicken can drink a quarter of a liter of water per day. It is necessary then 2.5 liters of water per day for every 10 chickens, and when the temperature increases, the amount of water consumed by one chicken per day increases to about half a liter, provided that the drinkers are placed in the shade near the feeders, and the drinkers should be monitored so that they are filled with water continuously and that the water Always pure, and it should be changed whenever impurities appear, as impure water transmits many diseases to poultry. So to fully benefit from the food, poultry must drink a large amount of water.

2.4 Healthcare

Disease prevention:

It is preferable to buy newly hatched chicks, one day old, or broilers, age: 3 months, from specialized production farms, so they are in good health and from good strains that resist heat, humidity and diseases.

Pay attention to hygiene:

Poultry sheds, feeders and drinkers must always be kept clean.

Do not put a large number of birds in one coop: they may fight with each other, and the stronger birds will injure the weaker birds or devour their meat, and it will facilitate the transmission of infection from one bird to another in crowded conditions inside the same coop. An area of one square meter is required for every 6 laying hens.

Hens should not be kept in the same pen with ducks and turkeys: because diseases of ducks and

Abyssinian can be transmitted to chickens.

Exclude sick birds:

It is advisable to exclude sick poultry and atrophied chickens that have stopped growing, as these birds do not resist diseases and may become a hotbed from which the disease is transmitted to healthy birds.

Do not delay in seeking advice when one of the birds dies or gets sick. It must be presented to the veterinarian and follow the advice he gives so that the infection does not spread to other birds in the farm. We often see all farm birds die because of one disease that affected all of them, and this is what must be avoided.

All birds must be vaccinated:

If you buy chickens from specialized centers, they are already vaccinated, otherwise you must consider vaccinating them even if they are one day old.

Vaccination: All chickens must be vaccinated to resist disease. This is done before she starts laying eggs, because if the hen is laying eggs and vaccinated with protective vaccines, she will stop laying eggs, and therefore she must be vaccinated when she is young. There are two main methods for

Immunization:

- Mixing immunization with drinking water or eye drops.
- Injections, and for more information, you can refer to the veterinarian specialized in poultry breeding to know the injection methods and dates, and to obtain clear instructions and protective immunizations as follows:
- **Table No. 1 Vaccination program for chickens**

Age	Taste type	The disease	Vaccination place	vaccination method
(1) day	marek	cancer	in hatching	Inject 0.3 mm in the neck
	Aphrodite	Newcastle	in hatching	spray
	IB	bronchitis	in hatching	spray
(12) days	Brostin	Newcastle+ Jumboro	On the farm	Inject 0.5 ml into the neck
(15) days	Cut the beak	Predation	On the farm	with electric scissors
(17) day	Fumigating Newcastle Live	Newcastle is alive	On the farm	spray
(36) day	Fumigating Newcastle Live	Newcastle is alive	On the farm	spray
(55) day	Newcastle Moms	Newcastle	On the farm	Inject 0.5 ml subcutaneously
(80) days	Largo	Sore throat	On the farm	Clear the manhole collector

2.5 A brief overview of the most important diseases affecting poultry

There are many diseases that affect poultry, and we will focus here on the most important and common diseases.

1- Rickets:

The leg bones are deformed and the affected birds become slow in movement and walk with difficulty as a result of the lack of vitamins and salts. Treatment: Supervit in drinking water.

2- White diarrheal disease (Gumboro):

The affected chickens are lazy and weak, they walk with difficulty, the abdomen increases in size, the wings droop, the stool is liquid and tends to white, and a large number of chicks die after eight days of hatching. Which leads to infection of all chicks with the disease and these chickens can be slaughtered or eaten. Their eggs can also be sold, but they should not be hatched. To prevent poultry from getting infected with this disease, chicks must be purchased from known sources.



Figure (1) Types of laying poultry strains



Figure 2: Pictures of an avian influenza infection

3- Newcastle disease (Alwagash):

It is a very common and dangerous disease that kills large numbers of birds within a short period of time. Its symptoms include difficulty breathing and poor digestion. This disease has no cure, but poultry can be vaccinated before infection, in addition to using Oxyvit at the rate of half a teaspoon per 2 liters of drinking water per day for five consecutive days each month.

4- Coccidiosis (red diarrhea):

This disease results from parasites that live inside the digestive system of the bird. When infected, blood appears in the stool of chicks aged 10 days to 3 months. If the disease does not kill the chicken within 30 days, it remains lean. If the chicken is infected with it, the date of laying eggs is delayed. For treatment and prevention, anticoccidiosis can be put in place. Diavit in drinking water to stop its spread. In order to prevent it, it is necessary to prevent the crowding of birds in the barn, and to take into account the strict hygiene of the mashrabiya and barns.



5- Clicking birds (predation):

When poultry is crowded in one barn, and its drinkers and feeders are insufficient, these poultry peck each other and pluck feathers until the body bleeds.

Here are some of the factors that encourage this phenomenon:

- 1 overheating. 2. Overcrowding. 3. Unbalanced feed ingredients.
4. Leaving dead or crippling birds for long periods of time. 5. Mixing ages that are very different in age and size.

In this case, the wounded and ferocious birds must be excluded, the wounds must be bandaged, the end of the urban beak must be cut off, and a bundle of grass should be suspended from the ceiling so that the birds will be preoccupied with reaching it and become less ferocious.



Figure (3) Fash bug

6- Decreased egg production: It is caused by a virus from ducks, so it is forbidden to raise ducks alongside chickens.

7- Alfash: a small insect about the size of a pin head. The adult female lays her eggs on the infected bird or in the cracks and holes. The eggs hatch into small larvae, then

moult into nymphs that can absorb the blood of the bird day and night. Feathers and red bugs and resistance to these parasites can be sprayed on birds and barn with a liquid pesticide or acretin powder.

2.6Broiler breeding

Raising chickens for meat production has requirements and rules that must be implemented and adhered to in order for them to grow and thrive.

The most important observations that must be taken into consideration when raising broiler chickens

First . Barn hygiene:

Wash the floor, walls, ceiling, drinkers, hangers, and all tools that are used in the farm thoroughly with water, detergents, and Masol disinfectant, and leave them to dry before the chicks arrive.

Preparing the nursery and covering the floor with a bed of sawdust, at least 10 cm thick.

The required temperature is 30 °C when the chicks arrive in the first week, then the temperature is reduced by 1 °C each week.

Providing mashrabiya at a rate of 2 liters for every 50 chicks, or an automatic mashrabiya for every 100 birds.

Provide relationships at the rate of one relationship for every fifty birds.

Second . Lighting:

Sufficient daylight inside the farm during the day and lighting neon lights at a height of two meters at a rate of 2 watts per square meter throughout the night to urge the chicks to obtain food for as long as possible.

Third . Feeding broiler chickens Starter feed (21% protein) is used during the first 21 days, then Tamra 1 feed, protein 18% from the age of 21 days, then Nimra 2 feed, protein 17, from the age of 31 days, and the gradation is taken into account when changing.



Figure (4) A full crop

Table No. 2 Preventive treatments for chicks under the supervision of a specialist veterinarian

Age	Vaccination type	place of immunization	Vaccination method
(1) day	Newcastle is alive V.H	in hatching	spray
	Infectious bronchitis IB		
	Water + sugar at the rate of 2 kg per 50 liters of water (without feed)	On the farm	For the first 3 hours then give starter feed
4+3+2 days	Antibiotic against omphalitis for 3 days	On the farm	in drinking water
(5) day	Fortifying and energizing vitamins for one day each week	On the farm	in drinking water
(8) day	Jumboro (it is recommended to repeat it at the age of 24 days)	On the farm	in drinking water
(11) day	IB virus, the new live virus, (and it is recommended to replicate it at the age of 31 days)	On the farm	Spray or drop in the eyes
(15) day	Vitamin K 12,5% and repeated on 20 + 25 + 30 + 35 days	On the farm	in drinking water
(17) day	Newcastle V.H (and it is recommended to repeat it at the age of 31 days)	On the farm	in drinking water

Program of preventive treatments for broiler chickens

Treatment: Neomycin 20% Neomycin antibiotic powder for the prevention of navel infection CRD + growth stimulant for chicks and given to the age of 2 + 3 + 4 days at a rate of 1 gram per liter of drinking water per day.

Treatment: Supervet is a powder of fortifying and stimulating vitamins to strengthen the immunity of chicks and increase their weight and growth. It is given one or two days every week, after vaccinations and after antibiotics, at a rate of 1 gram per 2 liters of drinking water per day.

Treatment: EnroColisten is a treatment and prevention of coli and pneumonia and intestinal infections at a rate of 1 gram per 2 liters of drinking water daily for 3-5 days.

Treatment: Coli Shur Taylo powder in drinking water for treatment and prevention of colds, respiratory and intestinal infections, and colic disease, given at a rate of 1 gram per 1 liter of drinking water daily for 3 days. It is taken into account when transporting chicks that they are transported in special cardboard boxes; They are the most suitable containers for transporting chicks, provided that they are not used more than once. It is preferable to transport in closed cars during the winter months, and in summer, the car has a degree of ventilation that does not reach the extent of the presence of air currents. It is preferable to transport the chicks in the early morning so that they are not exposed to sunlight or the cold weather in the evening. . It also gives

Chance for chicks to familiarize themselves with the location of food, water, heating during daylight and before dark and offering water + sugar in the first 3 hours.

Table No. 3 Drinking water needs for meat farms per day in liters for 1000 birds

Age per week	Cold days	Normal circumstances	Hot days
First week	26	33	44
Second week	62	78	103
Third week	92	114	153
Fourth week	137	171	229
Fifth week	158	198	263
Sixth week	189	236	351
Seventh week	211	264	352
Eighth week	227	284	379

Factors affecting drinking water needs: temperature, relative humidity, feed composition, disease condition

Table No. 4 Consumption of the amount of feed required for broiler chickens and the net weight of chicks in weeks

Age per week	The daily feed amount in grams	The amount of feed needed per week	Weekend average weight
first week	21 g	147g	153g
second week	50g	350g	380g
third week	81g	567g	715g
fourth week	112g	784g	1125g
fifth week	132g	924g	1507g
sixth week	163g	1141g	1970g
Seventh week	169g	1183g	2335g
eighth week	178g	1246g	2630g

Table No. 5 Consumption of the amount of water required for laying hens per day per 1000 birds

Age per week	Barn heat		
	21 degrees	32 degrees	39 degrees
	amount of water	amount of water	amount of water
2	40L	160L	80L
4	60L	100L	120L
6	70L	120L	200L
8	90L	150L	260L
10	100L	180L	300L
12	120L	200L	350L
14	120L	220L	380L
16	140L	240L	400L
18	140L	250L	410L
egg production rate			
0%	160L	230L	480L
10%	170L	240L	500L
20%	190L	280L	560L
50%	210L	420L	620L
70%	230L	450L	760L
90%	250L	490L	760L

Table No. 6 Calculating the costs of the broiler farm project and the economic feasibility

Clause	Capital fixed costs	The value	Total
1	The cost of constructing the barn building		
2	The price of buying metal ties		
3	The price of purchasing drinks and tools for the farm		
	Total capital fixed costs		
Clause	operational variable costs	The value	Total
1	The cost of buying chicks		
2	The cost of purchasing concentrated feed for fattening		
3	Services, electricity, water, sawdust and cleaning		
4	Medicines, veterinary treatments and sterilization materials for the farm		
5	Workers' wages		
6	In the case of renting the farm with its complete tools		
	Total operating variable costs		
Clause	Production and income report	The value	Total
	chicken selling price		
Clause	Earnings calculation for each cohort every 45 days:	The value	Total
	Profit value (income - variable costs)		

3- Poultry projects in Erbil Governorate

Many countries of the world have given special importance to poultry projects, and perhaps Iraq is one of the developing countries that has given great importance and special attention to these projects because of their importance in providing products of meat and eggs, as poultry meat is considered one of the basic foods that a person cannot do without, and the shortfall from it cannot be compensated As a result of not eating it with other foodstuffs, and that poultry projects in Wasit Governorate, like other governorates, were affected during the period of economic blockade on Iraq, which was reflected in the diminishing economic importance of these vital projects. The poultry industry in Wasit Governorate is very recent, as this industry was scattered here. There is, but not on scientific grounds in the method of breeding, and the first field that was officially established in cooperation with the agricultural authorities in the governorate was in 1978, and after that it continued to build fields, as the state encouraged breeders after that period of time to establish fields, and these projects flourished due to the great support provided by the state at the time and despite The novelty of these projects in Wasit Governorate, but they were able to fill a large part of the need of the local market in the governorate, as well as contributed to filling the needs of some localities. Taq, adjacent to the city of Erbil.



Figure (5) An open poultry hall

3-1 Factors affecting the production of poultry projects in Erbil Governorate

Many factors have affected this industry in Erbil Governorate, and the economic factor was the most affecting factor in the deterioration of poultry projects, due to the novelty of these projects and the weakness of the capabilities of their owners, as this industry deteriorated during the period of economic blockade and the emergence of ISIS in the region, which extended for more than twelve years of economic blockade and 5 years after the emergence of ISIS, the deterioration and recession of all economic facilities. As for the other factors, the research identified a group of factors, which are:

3-1-1 Geographical location

The geographical location has a significant impact on the establishment of poultry fields, which is reflected in the reduction of costs for easy access to these fields with regard to processing and supply operations or marketing operations due to the lack of services that villages and rural areas in this province suffer from, especially the paving of some main and secondary roads leading to this Projects where large quantities of the production of these existing projects in different regions of the province are marketed to the local markets in the province or marketed to the city of Baghdad and other neighboring cities. The city centers in the province were monitored, the farthest field from the center of the city of Erbil, which is the former Ahmed Ismail fields, which is only 5 km away from the center of the city of Erbil, which is located in the Shaqlawa road area, and the closest of these projects to the center previously. The researcher knew from officials in this sector that future services In the new location, paving the roads between the centers of Al-Qasaba and the production areas in the depths of the countryside in the governorate has been completed, which helps to diminish the importance of this factor in the eyes of investors. Agricultural economists

3-1-2 Climate

Natural factors have a significant impact on poultry production, and the climate is one of these important factors, as poultry production requires optimal temperatures inside the breeding halls, and this is not only reflected in regions with high temperatures, but even those that are characterized by low temperatures. Therefore, producers tried to find various ways and means for air conditioning processes, such as cooling or heating, in order to maintain appropriate temperatures inside the breeding halls.

The poultry fields in the study area are all for the purpose of breeding, for the production of meat and not for the production of eggs, and these differ in terms of the origins derived from them. During their breeding period, Table (1) indicates a decrease in temperature requirements as the age of the birds progresses, and therefore, when taking into account these requirements of thermal requirements in the breeding halls, it inevitably leads to a decrease in achieving an increase in the weight of the birds and then a decrease in production, which is reflected in the profitability of the project.

Table No. 7 Heat needs in poultry farming according to the age of the birds

Calorific needs	The age of the birds in days
From 1 to 30 days	31°C-33°C
From 31to 35 days	29 C°
From 36 to 39 days	28 C°
From 40 to 42 days	27 C°
From 43 to 44 days	26 C°

We note that the temperature requirements are high in the early days of the birds' life, then these thermal needs gradually decrease with the age of the bird.

3-1-3 Transportation

The methods of transportation and communication are one of the factors affecting the success of poultry projects because of their impact on the process of quickly accessing the products produced by these projects to the consumption area, as the products of this industry are subject to rapid damage when transporting them is delayed, as well as the inability to transport supplies such as feed, vaccines and medicines in due time. The occasion leads to a decrease in the production of these projects and thus exposes that industry to large material losses. Which links production areas with areas of consumption, despite the availability of most other possibilities in the establishment of such vital projects in the province.

3-1-4 housing



Figure (6) Broiler housing

Poultry housing is one of the important and influencing factors in the production of poultry. These housing vary in capacity and area depending on the quality of breeding and depending on the number of birds, as they differ according to the purpose of breeding, as if it may be for the purpose of egg production or meat production. The building of these dwellings is taken into account in terms of different breeding requirements in terms of temperature. This is reflected in field capacity and building material. Poultry fields in the Erbil region vary in terms of building material. Most of these fields were constructed from concrete blocks and ginkgo. Recently, it was discovered by breeders that this material does not suit the nature of the climatic conditions in the region. It was used to lower its prices compared to other building materials, as it led to a reduction in The volume of fixed production costs. To reduce high temperatures, educators have resorted to the use of different types of air conditioners. It has been observed that the desert cooling process has spread in most of the study areas because of its effectiveness in reducing the temperature to the desired limits, as well as its costs are not exorbitant, which is reflected in the provision of low temperatures. and increase in production. Likewise, when the study area is extreme in the fields in an extreme and very cold winter climate, the breeders took care of the means of heating during the winter season. As the decrease or rise in degrees

The heat exposes the flock of birds to a high percentage of death due to its preparation for infection with various diseases, such as New Castle and Kanpur diseases.

3-1-5 Nutrition

It has been noticed that purchases of feed for the fields are often from the state and private laboratories, as all poultry fields previously dealt with the state in purchasing their feed, but some of these fields resorted to meeting their feed needs from the private sector at commercial prices. The nature of dealing with the state entails obligations on the owner of the field by marketing 80% of the production of his field to the state slaughterhouses. As for Erbil, where there is a major massacre, which is the Ahmed Ismail massacre, which covers part of the requirements of the city's population of chicken meat.

3-2 Developing poultry projects during the period 2003-2017

As a result of the gradual improvement in the living conditions of the population of the governorate and the availability of new job opportunities, which increased the percentage of workers and the increase of these job opportunities led to an improvement in the standard of living, which led to the creation of an effective demand for many food commodities, and a large part of this demand shifted towards protein materials and meat at the time for the period 2003 To 2017, when the prices of this material improved, which reflected positively on stimulating producers by increasing or encouraging new producers to enter the production process in building new poultry fields, creating this effective demand to improve and increase production, but this increase was not at the required level that is sufficient to cover a small part of The growing need for this food item. This increase in the new fields led to a new demand for fodder, especially concentrated fodder such as protein and soy, which led to the state not fulfilling the supply of all these fields with these fodder materials, which forced many producers to buy these fodder at commercial prices that are not subsidized by the state. The price subsidy led to a gradual increase in the price of poultry meat, as the poultry fields in the governorate increased to 48 fields in 1994, and as a result of the positive variables mentioned above, the number of fields in the governorate increased to 52 fields for broiler production in 1997 and to 55 fields in 2000. And to 58 fields in 2002, and as a result of the high prices of this commodity of poultry meat due to the high inputs of feed, this led to a contraction in demand, which was reflected in a decline in production and some fields stopped the production process, as the operating fields became no more than 49 productive fields at the beginning of the year 2000 until it reached more than 1317 fields until 2017. It is clear to us that the production process depends entirely on the existence of effective consumer demand that leads to moving the production cycle and thus contributes entirely to the production process.

3-2-1 production

The total production of poultry for the region reached 175 thousand heads for the year 2000, and the fields of Erbil varied clearly among themselves in terms of production. Kardiyah reached

25,000 heads of poultry for the same year. The difference lies clearly in the production of poultry according to the different seasons of the year, as there was little production among poultry breeders during the summer season.

While in the spring season and the other two seasons, winter and autumn are approaching what it is in the spring, and this discrepancy can be attributed to the decline in raising poultry in the summer to the requirements of raising them at a time when the influencing factors cannot be fully controlled. Suitable temperatures for breeding during the summer.

3-2-2 Possibility of developing projects for the poultry industry in Erbil

Despite the lack of basic factors in the possibility of developing domesticated projects in Erbil Governorate, the most important of which is the loss of investment awareness of many investors in the agricultural sector, especially the livestock sector, due to the ambiguity in the immediate plans and unconsidered measures on the part of the successive governments in the administration of the Iraqi state with regard to The import policy of these products without paying attention to the local production of these commodities or the policy of raising price support for the main components on which this industry depends, which is a completely different mechanism for the development of this vital sector. Production and improving productivity by increasing investment awareness among agricultural investors and developing new credit formulas to provide loans and banking facilities to these in order to increase the volume of their investments and activate customs protection mechanisms in front of similar foreign goods and focus on customs exemptions on basic commodities imported by investors and tax exemptions on their products each This leads to the creation of a productive and wth climate Producers are optimistic about increasing and developing their production from and to these policies, which are the government support policy and the credit policy.

3-2-3 Government support and banking facilities policy

This policy depends on one or more strategies that aim to achieve the greatest amount of increase in production and fair distribution of income through the objectives of price policies, the most important of which are summarized as follows:

- 1- Caring for the interests of consumers.
- 2- Taking care of the interests of the producers.
- 3- Caring for the interest of consumers and producers at the same time.

As the interest of the consumer conflicts with the objectives of the interest of the producer, except in the case of setting these two policies by the state in one program aimed at taking care of the interest of producers and consumers at the same time, and this expresses the consumer's position in helping him to be able to obtain these products at relatively low prices, provided that they return to Producers of those products with a remunerative price return that guarantees him a level of living commensurate with the effort expended by him in producing that commodity, achieving a development at a price level parallel to the development in the level of individual income, in a way that guarantees the stability of trade exchange ratios between producers and consumers.

The adoption of those policies that support the producer in increasing his production of that commodity and obtaining remunerative income encourages him to continue production and develop it for many reasons that these governments take as a pretext, for example, these commodities are considered a basic source for obtaining foreign exchange through export, or they enter as intermediate production for the production of Industrial commodities that the country is keen to achieve a high rate of self-sufficiency, including for political necessities, or that this commodity constitutes a high proportion of consumer needs, as it is in our research, which includes the production of the largest possible amount of chicken meat in this province in order to reach a production equivalent to consumption through this Strategy, each of these policies has objectives that depend on the means and requirements for their achievement, as these means and requirements need to pay costs. Those effects, but

we find them through the benefits achieved when comparing the size of the costs and burdens expended to achieve that policy with the benefits achieved that are To increase the national income derived from increased production and when we do not want to implement this strategy, for example, in the event that the policy of price support is not applied to the producer or consumer, the production of that commodity will deteriorate and the size of the positive effects that this policy achieves from creating those positive benefits for society will decrease. Price policies must have the greatest chance of support and care by the state, especially in circumstances that are more like the conditions we are living in at the present time, in order to achieve through these policies two goals at the same time, including supporting producers to increase their production. Ensuring the interest of the consumer does not necessarily mean maintaining a stable level of prices for agricultural products. Rather, this can also be achieved when the level of increase in prices for agricultural and food products in particular is less than the level of increase in individual income. And by virtue of the nature of the income and price elasticity of demand for these products, the final outcome It is in the interest of the consumer to ensure an improvement in the level of food without the need to increase the percentage of what he spends from his income on foodstuffs. As for banking facilities, it is the process of enabling producers to obtain the necessary conditions that they need for production when the producer wants to build his productive projects, as the farmer's need for the necessary cash increases. To acquire production inputs in order to meet the variable costs associated with production processes.

Caring for agricultural producers by providing various sources of lending, whether governmental or cooperative sources of credit, in which the credit conditions borne by the producer are available as low as possible and are much less than the returns obtained from the use of those loans in order to achieve the goal of providing the

loan, and since agriculture is in its two parts vegetable production and production Animals are exposed to risk conditions because the producer is unable to control the conditions surrounding production. The possibility of a loss in production directly affects the process of repaying those loans. The state must work to reduce the impact of that risk by providing credit facilities with appropriate conditions in the process of repaying those debts. It is also necessary when achieving an increase in the productive efficiency of the product, it is necessary that these credit facilities be accompanied by the provision of the necessary complementary services to them. If these loans or advances were directed within extension programs, the Agricultural Extension Agency, according to a directed loan program, would purchase most of the assets or supplies at subsidized prices. Or that some of the loans are in the form of in-kind loans, or that the process of repaying the loans is linked to the marketing of those agricultural products now Result from the support or contribution of those loans to its production.

5-5 The evolution of the population in Erbil compared to the development of poultry farms The development in the size of the population of Erbil governorate during the period from 2003 to 2017 has been a significant development, as the population of the governorate in 2018 reached approximately 5 million people, and this number has developed to more than that due to displacement and migration To Erbil, the increase in broiler production during that period is not commensurate with the population increase. We also notice this through Table 2, which represents the number of fields and their production capacities.

Table No. 8: Statistics of the fields in Erbil

شون	وزە/مليون	ر.سیت	کار دەکات
خەشەو	5.76	3.5	5.76
قوشەشە	10.5	6	10.5
مەزە احمد	2.5	2	
قەرەچناغە	12.672	8	12.672
طردەرەشە	4	2	
تومار	5.65	3	5.65
نەردە لا	3.5	2	3.5
قەشەو	1.6	1	1.6
قەرەشناغە	1.6	1	1.6
هەمەزەکور	3.84	2	3.84
نەویری	3	2	3
تەقی تەقی / کۆیە	8	4	8
نەجیرۆک خەمەت	1.6	1	1.6
قەرە مەنەشە	4	1	4
مام قەنەجە کۆیە	3.84	2	3.84
شەقلاو	5	4	5
مقارە - شەمەمە	6.264	3	6.264
شەمەمە شەمەمە	5.76	3	5.76
بۆکەلە قوشەشە	7.68	4	7.68
نەلەر مەزەگەسە	3.84	2	3.84
رەبە در او خەمەت	3.6	2	3.6
خەشەو قوشەشە	5.76	3	5.76
بۆم لکە قوشەشە	7.68	4	7.68

4. Recommendations and Conclusion

4-1 Recommendation to get out of the crisis and ways to develop the industry

Fighting bird flu:

- 1- The required biosafety rules must be followed in order not to be exposed to the disease, instead of waiting for the disease and then trying to combat it, as prevention is better than treatment. In their farms in the occurrence of the disease among the owners of committed farms neighboring them.
- 2- The need for vaccination to take place under the supervision of veterinary medicine and representatives from the Poultry Federation to ensure that the vaccine does not leak out and is sold to farm owners.
- 3- Selection of good strains for breeding in Egypt, because the strains present in Egypt are infected with several diseases.
- 4- The need for slaughterhouses for this industry. Even if we had slaughterhouses, they could be used in this crisis by slaughtering the medically and hygienically sound ones, according to veterinary conditions, and keeping them in refrigerators to sell them later, but their establishment is very expensive.
- 5- Preventing the breeding of domestic birds in cities and vaccinating rural birds free of charge.
- 6- The need to intensify control over shops selling live birds.
- 7- The need for egg farms to be at least a kilometer away from the farm.
- 8- The need for an information base, and there is a discrepancy in the numbers and the lack of an inventory of many activities related to and based on poultry.

9- Adopting modern scientific methods in education and nutrition and selecting the breeds produced for their breeding. In fattening, there are strains designated in meat with genetic weights and a high nutritional rate, and standard weights in the least time, reaching 2 and a quarter kilos in 36 days, and these rates do not come out of nowhere.

10- Extensive investment in vaccine production. Indeed, neighboring countries need to import vaccines.

11- Providing heating means (gas - cooker) at reasonable prices so that the poultry sector is not exposed to epidemic diseases, especially in the winter season.

Reduce production cost:

12- Adjusting the conditions of farms that were built in the past, and there was an urban encroachment on them, while not closing them, while treating them as an exception, and placing them under strict control and preventive systems.

13- Reducing the areas of rice, and expanding the cultivation of hybrid yellow maize in reclamation lands, by making contracts between maize producers and giant poultry companies to ensure profitability for farmers and a good price for companies. An acre of maize consumes an average of 3 thousand cubic meters, while an acre of rice is on average private Short-lived varieties consume 6 thousand cubic meters, and therefore deducting 400 thousand feddans for corn cultivation will make a big difference from rice.

14- Work on breeding local chicken crosses that are similar to international ones in the production of eggs and meat, and self-sufficiency in serums, medicines and antiseptics for poultry.

15- Alternatives to feed raw materials must be available for use in the poultry feed industry, including special wheat for use in animal and poultry feed, as long as its price allows it to be used economically.

Education according to modern technology methods:

16- Modern breeding needs capabilities with the presence of specific batteries for fattening or laying eggs, and the place is air-conditioned and has electronic ventilation sources. The place is run by a computer, and this system is present in Egypt in major companies.

17- It is necessary to use machines or machines that separate the solid waste of guano and then fill it in plastic bags that are closed and then transported to the fertilizer factories. As for the liquids, they are drained into the drains, thus the risk of pollution is eliminated. In addition, solid waste can be used after its separation in the production of organic fertilizer. And fodder, as this waste contains a protein content of about 25%.

Providing support and compensation for the injured:

18- Poultry farms of all kinds (breeders - fattening - laying eggs, technical and veterinary) with real support.

19- Providing interest-free soft loans to farms, which may reach partial exemption.

20- Support for the granted lands.

21- Feed support.

22- A fund must be established to secure the poultry industry in order to balance its prices and help in times of disasters, by imposing low fees on investors in the event of importing and purchasing fodder and some industry circles, by forming a

committee specialized in assessing losses and the extent of disease spread and carrying out the execution of infected birds, and then compensation fund.

23- Developing the social fund system as one of the most important financing methods for small projects.

Equilibrium selling prices of poultry:

24- It is necessary to control the selling price of poultry, and there should be a balance between the cost of feed, labor, medicines, etc.) and the selling price to the final consumer.

25- The necessity of announcing a guarantee price for the purchase of the crop well in advance of the planting date to encourage farmers to plant maize.. Since failure to announce the supply price has a significant impact on the farmer's reluctance to buy seeds.

The establishment of desert farms and the gradual transfer of existing farms:

26- Farms must be given a sufficient period of time before transferring them to the desert, so there must be a map of the desert lands + a water map (full data must be provided on the sites and the size of the water reserves), and the state must complete the foundational structure of the main sites, and then collect its full value from the investor .

27- The problem of adjoining farms must be addressed by going out to the desert and granting the state to their owners land at reasonable prices to establish new farms as an alternative, especially since adjoining farms are mostly located in residential areas. The government must provide the infrastructure for new farms in desert areas. complete (electricity (drainage), the establishment of integrated areas (farms, feed factories - housing with their services), and that the system of public auctions be

followed in the lands that are allocated for the poultry field, outside the reins of agriculture and away from the residential block and according to the distances of the human dimension, and from the proposed places (October Road, Wahat west of Beni Suef, east of Beni Suef, west of Minya, and east of Minya).

28- Establishing poultry cities that alone are capable of accommodating about 25 thousand giant poultry farms.

The important guiding role of the mass media for consumers and educators:

29- The media should create awareness among citizens not to take a negative attitude towards frozen poultry, and educate them through the various media about the steps taken by companies that undertake the slaughter and processing of frozen poultry by explaining the stages of slaughtering, processing, cooling and freezing the chicken, and the presence of sufficient and accurate control from the Ministry of Health on these Companies and repeated awareness with the real improvement by these companies in providing their products with a relative reduction in their prices at least .. All of this will certainly change the negative image of the public towards the consumption of frozen poultry, and works to bring about a new recovery in the poultry market.

30- Adopting a media campaign for educators, marketers and consumers to clarify the seriousness of the disease and the means to contain it, with severe penalties for non-implementation of the above procedures and rules.

The importance of developing the internal trade sector:

31- The development of the domestic trade sector will eliminate bird flu, because it focuses primarily on the end of the chain, which is the consumer.

32- Live chicken can be sold through collective markets in which uninfected birds are collected, with a certificate from the poultry laboratory, and they are examined by a veterinarian inside, and then trading takes place from buying and selling to the citizen, because the rural person cannot eat the frozen because he mainly suffers from power outages, so how can he guarantee validity . This system exists in America, Malaysia and Thailand, and today's prices can be determined through a stock exchange and announced and dealt with by citizens.

The role of the stock exchange is essential in the development of the poultry sector:

33- Raising the status and role of the poultry stock exchange, which works to provide guidelines and indicators for the market, with the need for integrated records on this industry and advanced analytical studies for each aspect of the industry, and the importance of coordination between parent companies and breeders, in addition to the ability To predict the future and face any contingencies, whether satisfactory or in the elements of cost, "Attachment of a study entitled: Commodity Exchanges, Preparation of the Economic Department of the Chamber of Commerce in the Eastern Province."

Continuous training:

34- This is by giving specialized courses, and keeping abreast of the latest knowledge in the field of breeding and monitoring, whether in the field of veterinary medicine or for the educators themselves. It is also possible to implement a dual education and training program through which the field of animal and poultry production is opened within the college's agricultural business program.

Foreign investment, whether in the field of education or agriculture::

35- State support for companies working in the field of domestic investment in African countries with natural pastures and low prices for corn and soybeans, such as Sudan - Uganda - Ethiopia, in a way that does not expose them to the risks of political changes in particular). There are Egyptian companies in Sudan that invest and plant.....

The need to study the experiences of other countries:

36- The need to study the experiences of countries in which the disease had previously appeared and were able to return to their normal consumption rates, or even better, as happened in Thailand and Turkey, and we find that Indonesia was able to overcome the problem of bird flu, and followed a system in which each village has its own authority.

The need to eliminate security disturbances and achieve political stability:

37- Security disturbances that expose transport vehicles to robberies, which will constitute a great reluctance on the part of breeders and investors from the poultry industry, and political instability leads to the reluctance of external investors.

4-2 Conclusions

1- The importance of poultry is not limited to being food for the population in the city of Kot, but rather extends to other cities

Others in the country and poultry waste is considered a good organic fertilizer in breeding.

2- Most of the fields in the study area depend on veterinary supervision by veterinarians

The phenomenon is very positive and necessary.

3- Not only diseases lead to the death of poultry, but power outages during close periods lead to a great loss for producers, as well as to the quality of feed and the extent of its contamination.

4- The field breeders, when establishing their fields, took into account the factors affecting the settlement of poultry fields in the study area.

5- The increase in the consumption of poultry meat indicates the economic progress in the city.

6- There is a close relationship between per capita income and poultry productivity. In terms of the producer, the greater the demand for poultry, this leads to expansion in his field of work, and this in turn affects the nature of the consumer's income.

7- The population increases in Erbil Governorate during the year (2010) resulted in an increase in the demand for poultry meat, so that the production amount reached 2167200 kg to suit the increase in the population, and thus we reach self-sufficiency in poultry meat.

4-2 Recommendations

1- Work to provide everything that supports field owners to push them to expand in their scientific and practical fields.

2- Giving the owners of the fields vaccines and special medicines and combating the diseases that spread inside the fields at reduced prices and subsidized by the state.

3- Providing the necessary assistance for the development of poultry farming by preserving and improving good quality.

4- When establishing fields, holders of scientific degrees must be taken into account by giving them priority to establish fields, as well as providing advances, loans and assistance, whether material or moral, to poultry breeders.

5- Establishing fields by government bodies and institutions with scientific specifications and providing all their requirements such as advertising, staff, medicines, etc., so that they become model production fields that guide the private sector.

6- Spreading health and cultural awareness in relying on the consumption of poultry meat.

7- Establishing a television channel, which we suggest calling it the “consumer guidance channel.” The consumer is the last link in the commercial system, and it is the most important link in it, because he is the one who controls the helm. The ability to direct him becomes the ability to control all stages. The consumer through full concern for his interest and presenting the facts without equivocation, the staff of this channel should be most interested in ensuring the family budget by achieving the maximum possible satisfaction through limited income with the classification of families, and they have the ability to address the minds and hearts of the masses "social psychology" can be used Some famous people such as writers, artists, football players, etc.” Thus, they can lead the public towards consuming a commodity or abstaining from a commodity.

8- The necessity of restructuring, rather establishing a new apparatus specialized in small projects in which all ministries participate and enjoys independence, huge capabilities and full support from the state. With goals”), the real secret of China’s progress is the massive and endless government support it provides to all projects, especially the small ones. All of this should be within the competence of this body, which should report directly to the Ministry of Agriculture.

9- Activating the role of veterinary guidance and providing the capabilities and means that help it more effectively in spreading awareness among breeders, and knowing the strengths and weaknesses of the entire system, so that it excels in performing its role as a real link between the government represented in the Ministry of Agriculture and the breeder.

10- Increasing the criminal penalties for anyone who establishes a monopoly, whether it is an individual or a small group and large) and on all citizens, after proving the monopoly agreement, whether explicit or implicit, from producers or merchants.

11- Encouraging a “land-to-table system directly without an intermediary”, and this system guarantees the retailer and wholesaler a direct contract with the farm without an intermediary, where the commodities are offered at a small profit margin, and the multiple stages through which the commodity goes and its price increases (such as the German Macro series) are canceled .

12- Encouraging the establishment of integrated commercial complexes, as they are an ideal solution in the short and long term to eliminate exploitation, where the wholesaler gathers next to the retailer in one place, and major sales stores are available that sell at lower prices under real competition and control.

13- Genetic engineering and genetics is the future of agriculture without doubt, and it is expected and hoped that it will make tremendous progress in the breeding processes, and the possibility of providing strains that can withstand thirst and resist high temperatures has become available and applied, so it must be expanded, and this is the role of research centers in universities or affiliated Ministry of Agriculture, headed by the Agricultural Research Center.

14- Encouraging the industries of preserving and drying vegetables and fruits, as they contribute effectively to reducing the impact of price increases in times of crisis, in addition to the high added value in the event of export.

15- The call towards rationalizing consumption of all kinds through the media, schools, and street advertisements.. where the majority behaves extravagantly like water consumption, and wasteful like poor dealing with a subsidized loaf of bread,

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پوخته

پروژه کشتوکالیییهکان یارمهتیدهرن بو دروستکردنی گهشهسەندنی دەستبەجی و جەوهەری، بە شیوەیەکی کاریگەر بەشداری لە هەلمژینی هیزی کار، کەمکردنەوهی پێویستی هاوردهکردن و کردنەوهی دەرگای پێشەسازی. پێشەسازی پەلهوهر زەرەرمەند بووه و بەردهوامیش بەدەست تێکچوونی توندهوه دەنالییت و پێشکەوتتیکی کەم لە دواي شەری ئەنفلۆنزای بالەندەوه بەدەست هاتووه. دەرگا مەرجهکانی پرووختاندن بو بێناسازی نوێ لەسەر زەوییهکی پتەو بەکاربهێنریت. بەداخەوه تا ئیستا ئەمە پرووی نەداوه. ولات لە دواي سەرھەلانی ئەو گێژاوه و قەیرانە داراییەکی دەوری کوردستانی عێراقی دابوو بو قولکردنەوهی قەیرانەکان لە ئەنجامی دوخی بەردهوامی پێشکەوتنی توند.

بەرای ئیمە گرنگترین شت بو ئەوهی بەرھەمی پەلهوهری ناوخوا بمیێتەوه و نەهێلریت، بەردهوامی بوونی قەبارەیهکی گونجاو بەلام نایەکسانە لە خواست لە ماوهی سالانی رابردوودا، و بە توندی راکیشانی هاوردهکارە وەک ئەوهی بیری لێدەکرایەوه "سەرەرای". کەمکردنەوهی گومرگ بو تەنها 4% لەگەڵ لیخۆشبوون هاوردهکارە لە ولاتانی عەرەبی "0%", و چارەسەریکە بو سڕوشتی بەکارهێنانی ناوخوا، کە هاوردهکاریکی زۆر خواراوی نییە، بە پێچەوانەی گومرگی گەلانی دیکە وەک کەنداو، بەهۆی... شیوازی ژیاوی جیاواز، کە بەشیکی زۆری بەندە بە گوشتی هاوردهکارا.

لیکۆلینەوهکە ئەم خاڵانە خوارەوهی دەستنیشان کردووه کە رێگرن لە پێشکەوتنی پێشەسازی پەلهوهر لە کوردستاندا

1. شوینی جوگرافی هەلکەوتەي جوگرافیای شوینەکە کاریگەرییهکی بەرچاوی لەسەر دامەزراندنی کێلگەي پەلهوهر هەیه، ئەمەش لە کەمبوونەوهی تێچووی دەستگەشتن بە ئاسانی بو ئەو کێلگەنە لپرووی پڕۆسێسکردن و دابینکردن یان کارەکانی بەبازارکردنەوه بەهۆی گوندەکانەوه رەنگدەداتەوه و ناوچە گوندنشینەکانی

ئەم پارىزگايە كەمى خزمەتگوزارى، بە تايىبەت قىرتاۋى كىرىدى ھەندىك لە رىگا سەرەكىيەكان و لاۋەكى بەرەو ئەم پىرۋژانە.

2. كەشۋە ھەوا ھۆكارە سىرۋىستىيەكان كاريگەرىيەكى بەرچاۋيان لەسەر بەر ھەمەيئەنى پەلەۋەر ھەيە. كەش و ھەوا يەككە لە ھۆكارە گىرگانە. بەر ھەمەيئەنى پەلەۋەر پىۋىستى بە پەلەي گەرمى گونجاۋ ھەيە لە ھۆلەكانى بەخىۋى كىرىدى. ئەمەش تەنھا لە ناۋچانەدا دەرناكەۋىت كە پەلەي گەرمىيان بەرزە و تەنەت پەلەي گەرمىيان نزمە. بۆيە بەر ھەمەيئەن ھەۋلىيان دا رىگا و ئامرازى جۆراۋجۆر بۆ كۆندىشنى كىرىدى لە سارد كىرىدى يان گەرمى كىرىدى بۆزەنەۋە بۆ ئەۋەي پەلەي گەرمى گونجاۋ لە ھۆلەكانى پەروەردەدا پىرۋژان.

3. گواستىنەۋە گواستىنەۋە يەككە لە ھۆكارانەي كە كاريگەرى لەسەر سەر كەۋىتى پىرۋژەكانى پەلەۋەر ھەيە بە ھۆي كاريگەرى دەستراگەيشتى خىرا بە بەر ھەمەيئەنى ئەم پىرۋژانە بۆ ناۋچەي بەكار بىردىن بە پىيەي بەر ھەمەكانى ئەم پىشەسازىيە بەر كەۋىتى زىيانى خىرا بوو لە دواكەۋىتى گواستىنەۋەي ۋەك... ھەروەھا بىتوانايى لە گواستىنەۋەي پىداۋىستىيەكانى خۆراك و ڤاكسىنەكان دەرمان لە كاتە گونجاۋەكاندا دەيىتە ھۆي كەمبۈنەۋەي بەر ھەمەيئەن

4- خانوۋە بەرە پەلەۋەر ڤاكتەرى گىرگە و كاريگەرە لە بەر ھەمەيئەنى پەلەۋەردا لە قەبارە و قەبارەي ئەم خانوۋەدا جىاۋازە بەپىي كۋالىتى خۋىندى و بەپىي ژمارەي بآلندەكان، كە بەپىي ئامانجى پەروەردە كىرىدى دەگۆرۋىت، ۋەك ئەۋەي لەۋانەيە بىت بۆ مەبەستى بەر ھەمەيئەنى ھىلەكە يان بەر ھەمەيئەنى گۆشت رەچاۋى درۋست كىرىدى ئەم خانوۋە بەرە دەكات

5 خۆراكدان تىيىنى كراۋە كە كىرىنى عەلۋەي كىلگەكان زىاتر لە دەۋلەت و تاقىگە ئەھلىەكانەۋەيە بە پىيەي ھەمۋە كىلگە پەلەۋەرەكان پىشتىر لە كىرىنى خۆراكەكانىاندا مامەلە لەگەل دەۋلەت دەكەن، بەلام ھەندىك لە كىلگە پەنەيان بىرۋەۋە بۆ دابىن كىرىدى پىداۋىستىيەكانىان لە... خۆراك لە كەرتى تايىبەتەۋە بە نىرخى بازىرگانى