Analysis of the Technical and Sanitary Constraints of the Traditional Breeding of Guinea Fowl in “Région des Savanes” of Northern Togo

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Abstract: A survey to determine the causes of mortality of guinea fowl and the technical and sanitary constraints of the traditional breeding of guinea fowl was carried out among 106 poultry farmers from the Savannah Region in North Togo. The survey also made it possible to identify the breeding constraints and the endogenous practices of rearing of the guinea fowl. The results obtained from the investigations are: (i) the high rate (69.81%) of illiterates is not conducive to the definition or control of plans for prophylaxis and rationing. (ii) Breeders are unaware of disease-resistant strains of guinea fowl. (iii) Guinea fowl breeding starts with traditional methods, with 33.96% of the breeders who leave the guinea fowl in the wilderness and 13.21% who breed them in conflagration pell-mell. (iv) The formulations of food rations in order to satisfy the nutritional requirements of guinea fowl are virtually non-existent. The sources of proteins sometimes supplemented are only termites. However, food imbalance leads to growth lags. (v) Prophylaxis plans are not followed by breeders. Fifty two percent (52%) of the breeders self-medicate and other breeders (9.43%) do not treat. Several plants are used alone or in combination to control poultry diseases. (vi) biosecurity measures are non-existent in the farms (48.11% of the farmers give the dead guinea fowl to the children for consumption and 66% of the breeders throw the dead guinea fowl in the wild). (vii) The major constraints identified in this investigation are the remoteness of the veterinary supply centers, the lack of access to quality veterinary services, the low rate of training of farmers, the inadequate support of pastoralists livestock equipment; (viii) the problem of predators (93.40%) and the problem of access to effective veterinary products (79.25%) were noted.

Key words: Guinea fowl farming, constraints, “Région des Savanes”, Togo.

1. Introduction

Guinea fowl farming is widespread in Togo, especially in the two northern regions where it is an essential pivot in the incomes of peasant households [1-3]. Guinea fowl has a higher market value than chicken. Despite low productivity [4-6], high exposure to diseases [7-10] and the difficult environment in which the breeding of the guinea fowl evolves, the guinea fowl plays a major socio-economic role, occupying an important part in poultry farming in northern Togo. Given the enthusiasm of breeders to tackle this breeding despite the difficulties they face, it seems wise to think of ways to improve this poultry farming [11].

Since July 2014, the non-governmental organization named AVSF (Agronomes et Vétérinaires Sans Frontières) has started the implementation of the project “Sustainability and resilience of family farming in ‘Région des Savanes’ of Togo”. In addition to the promotion of sustainable agricultural practices and the development of agroforestry, this project aims to reduce the economic vulnerability of farms by increasing their income through market gardening and small-scale livestock farming so that agricultural households are more resilient to external shocks, price
variability, etc. In order to achieve this objective, it has been necessary to improve guinea fowl breeding because this farming is still very unproductive due to high mortality of guinea fowl [12]. Contrary to what is observed in traditional chicken breeding, raising the guinea fowl is difficult. For more than two decades, research activities undertaken here or elsewhere have been trying to find solutions to improve this species. However, the observation made on the ground is that nothing has changed. It is within this framework that upon request, ITRA signed the two-year service contract (2015 and 2016) with AVSF to conduct the study. The aim of the study was to identify the shortcomings of current practices in health and zootechnical monitoring that may jeopardize the success of guinea fowl farming. Specifically, they are:
(1) Investigate the causes of high mortality of guinea fowl and the constraints of rearing in the project area;
(2) Identify effective endogenous hatchery farming practices;

2. Materials and Methods

Primary data on the breeding of the guinea fowl, its feeding and zootechnical and sanitary constraints were collected through a bibliographic review. This phase of bibliographic data collection was followed by a field survey in which 106 farmers of guinea fowl were interviewed on their practices of raising guinea fowl. The survey was conducted in “Région des Savanes” of northern Togo (Fig. 1). The surveyed breeders are divided into six cantons, namely the cantons of Sanfatoute, Kourientré and Naki-ouest for the prefecture of Tône and Biankouri, Timbou and Nadjoundi for the prefecture of Cinkassé. In the course of this survey, a questionnaire was administered to each breeder to collect information that could be used to identify the causes of high mortality of traditional breeding stock. The endogenous practices of raising of guinea fowl were also recorded using this questionnaire.

The collected data were entered and processed using...
the EpiData, Version 3.1 and Excel software, Version 2007. This allowed making tables and graphs and calculate percentages.

3. Results and Discussion

The results of this investigation revealed a number of facts that could justify the high mortality rates often recorded in family farms.

3.1. Interest in Raising Guinea Fowl in Rural Areas

Surveys conducted between 2015 and 2017 in the Savannah Region of Togo have shown that the average backyard is composed of 36 hens, 16 guinea fowl, 6 pigeons and 1 duck.

Guinea fowl is mainly grown for: marketing (51%); ownership (38%); sacrifices and donations (11%).

The income of poultry households is mainly guinea fowl (77%) followed by chicken (23%); Ducks are raised more for consumption (82%) followed by chicken (14%) and guinea fowl (4%). As a sacrificial use, guinea fowl is second (11%) after the chicken (65%).

Income derived from the farming of household guinea fowl is mainly used for health, schooling, clothing and the purchase of chemical fertilizers.

In the area of investigation, the selling price of guinea fowl depends on three factors: the time of year, the need for the farmer and the locality where the farmer lives. Generally, guinea fowl is sold cheaper in remote areas where access is difficult and more expensive in the city. In addition, it is expensive during the holiday season (Christmas party, New Year, Ramadan, Tabaski) during which demand is high. The study also revealed that during the month of May the guinea fowl is also expensive because at the moment, the breeders keep the breeders to have eggs and start a new campaign. Likewise, during this meal, guinea fowl benefits from the greenery following the arrival of the first rains and becomes heavier. The cheapest guinea fowl is sold at a minimum price of 1,500 F CFA and maximum of 2,700 F CFA whereas the most expensive guinea fowl is sold at minimum price 2,000 F CFA and maximum of 3,000 F CFA. In general, the price of guinea fowl is increasing since in 2008 Guinea fowl cost an average of 1,800 FCFA in Dapaong [13].

3.2. Characteristics of the Surveyed Breeders

The breeding of guinea fowl is an activity practiced exclusively by men. Women rarely intervene in this activity. These men are mostly (95.28%) of the agro-pastoralists. The level of illiteracy is higher in traditional poultry farming. Indeed, 69.81% of the breeders surveyed are illiterate, 18.87% have the primary level, 8.49% have done the college and only 2.83% have done the high school. The same observation was made in Benin, Burkina Faso, Niger, the Democratic Republic of Congo and Zimbabwe [14-20].

The high rate of illiterate breeders does not facilitate the control and implementation of plans for prophylaxis and food rations. Training programs should therefore take account of this parameter, which could be one of the causes of mortality of guinea fowl.

3.3. Methods of Rearing Guinea Fowl

3.3.1 High Guinea Fowl Strains

In terms of disease hardiness, good hatching, good size and good production, black-legged, purple camel-topped feather guinea fowl ranks first (22%) in the preferential classification of guinea-fowl strains high. The same reasoning was narrowed by the breeders (3%) who hold the gray feathered guinea fowl with white breast and primary feathers. On the other hand, the white guinea fows, more susceptible to diseases, are depreciated by the breeders. The few breeders (2%) who hold them evoke the reasons for the beauty of the feather and want to preserve this strain. For guinea fowl with black feather, the main reason mentioned by the holders (3%) is that they are highly sought after during ceremonies.

For a good breeding of guinea fowl, the guinea fowl with gray feather with purple camel and black legs is
recommended due to its good size, hardiness to
diseases, good production and hatching of eggs. On the
other hand, the white-feathered guinea-pig strain is
more susceptible to diseases.

3.3.2 Mode of Operation of Guinea Fowl

The start-up is poorly practiced among the breeders
with 33.96% of the breeders who make the start in
rambling and 13.21% who do it in conflagration
pell-mell. Of course, 50% of breeders breed guinea
fowl in segregated confinement, but the forms of
confinement described by them are far from resolving
their expectations in terms of reducing mortality rates.
Indeed, it should be noted that in the study environment,
there are three forms of breeding in confinement:
(1) Retain the mother chicken under a picket
preventing it from wandering with the guinea fowl;
(2) Take the guinea fowl and chicken each morning to
the field where they are raised up to nearly two months
of age.
(3) Keep the guinea fowl and chicken in a hut or under
a basket braid and feed them with termites and corn or
crushed millet.

It was noted by breeders that field-bred guinea fowls
were less prone to diseases than those raised in house
confinement.

In confinement, the breeders are content to lock up
guinea fowl and chicken. The use of litter and the
heating of the hen house or booths are not yet the
subject of special attention.

In reality, the start-up phase is an 8-week period
[21-24]. This is the critical phase in the success of
raising hens. At this age, the very fragile guinea fowl
must be protected against abiotic factors (cold and
predators) and biotic factors (pathologies).

The recommended form of confinement is to keep
the guinea fowl and chicken in a hen house or in a
well-ventilated starting cage containing litter and to
warm the enclosure if necessary (especially during the
rainy season).

Habitat. Sixty-five percent (65%) of the
interviewees constructed improved traditional poultry
houses (PTAs) compared with 35% who use the old
habitat model. However, thirty-four percent (34%)
of the breeders who built the PTAs did not disinfect them
at all. In addition, the observation on the ground is that
the PTA is built for all poultry species of the breeder
[17, 25]. In rural areas, there is no specific habitat for
guinea fowl. The housing conditions of these poultry
do not differ to those observed in Burkina Faso [23,
26-28.] and Benin [16, 28]. Under these conditions,
animal performance will decrease both in disease
resistance and in production [29].

Power supply. Fig. 2 shows the different foods
distributed to guinea fowl and the percentage of people
who use them: termites (84%), corn (78%), millet
(69%), rice (44%), and soybeans (41%), fishmeal
(28%), sorghum (17%), millet grains (10%), eggshells
(8%) and sorghum grains (4%). Fifty-five percent
(55.66%) of the breeders mix ingredients before
distributing them to guinea fowl. However, the food
formulations used are only a mixture of cereals:
crushed corn-sorghum-millet-rice or
corn-sorghum-millet. Sources of protein are absent in
the diet. The proteins are only supplemented
sometimes as termites especially for guinea fowl. The
frequency of distribution of the food generally varies
according to the age of the guinea fowl. Three times per
day (89.62% of the cases) in guinea fowl, it is reduced
to twice daily (64.15% of cases) in adults. Other
breeders (26.42%) distribute some seeds in the
morning and the animals complete their rations outside.
According to breeders, those who distribute three times
or more a day (7.55%) aim at gaining the confidence of
their livestock by seeking to create a habit through
reconciliation [19, 25, 28]. Water distributed to guinea
fowl comes from boreholes and wells (99.05%), ponds
and rivers (0.95%). This result shows that the source of
water-related poultry infestation would not reside in
the origin of distributed water, but rather in its
management or maintenance of watering troughs.
Indeed, water is served mostly in drinkers made of
pierced pots or in pieces of pot. The sources of infestation
of water-related guinea fowl were mentioned by Bessin et al. [25]. During the rainy season, the guinea fowl drinks in pools and puddles, available around the houses. In the dry season, it drinks from the debris of calabashes or broken canaries, rarely cleaned and made available to all animals in the barnyard. Adequate watering, adapted to the size of the farm, with minimal hygiene will reduce the frequency of nephritis and visceral drops [25].

**Health of guinea fowl.** In terms of health and medical follow-up, no prophylactic plan is followed by the farmers. Fifty-two percent (52%) of the breeders self-medicate, compared with 44% who use a livestock auxiliary (AVE) in the event of disease in the livestock. Certainly, some farmers are vaccinating or de-paving poultry (Table 1), but operations are not systematically applied. And 25.47% of the people surveyed do both the vaccination and the internal and external deworming but these operations are not repeated on the same animals to guarantee them health protection throughout the year. These are sporadic actions often applied to a band of poultry. Moreover, other breeders (9.43%) do not make any treatment (Fig. 3). The survey revealed that 23.58% of breeders do not vaccinate guinea fowl, 19.82% do not do internal deworming and 62.26% do not do external deworming.

The health monitoring as described by the breeders does not make it possible to have an interesting rate of success in family breeding [30]. Self-medication can lead to deaths due either to the incorrect use of products or to the use of products not adapted to the rearing of guinea fowl. The neglect of the maintenance and disinfection operations of the poultry houses leads to the spread of germs, which is the cause of several diseases which may lead to the death of several individuals.
The dead guinea fowls are either thrown into the wild (66% of the breeders) or given to the children to eat (48.1% of the breeders). These practices pose risks of contamination of the rest of the farmyard by germs [31].

According to the breeders, the mortality of the guinea fowls are greater between the first and the second week (Fig. 4) with recrudescence at 3 months of age (9.42% of the breeders). These mortalities occur between July, August and September (Fig. 5). These results confirm those obtained in Burkina Faso [25, 32], Nigeria [4] and Benin [16]. According to these authors, the maximum mortality period is in August during the rainy season. The high moisture levels that characterize the rainy season and the way in which farms do not take into account the physiological characteristics of guinea fowl favor the onset and persistence of diseases on farms. The guinea fowl is a bird that regulates its internal temperature worse until it is completely feathered. The ambient temperature in which the guinea
fowl lives must never be less than 25 °C. The temperature should be around 36 to 38 °C under a breeder and 28 °C in the environment [22]. It is therefore necessary to provide for heating of the habitat during the cold period and when the chicken house is very wet.

3.4. Local Know-How in the Control of Guinea Fowl Diseases

In terms of health monitoring, the permanent non-availability of veterinary products is the subject of alternative endogenous solutions. Traditional know-how identified includes the use of bark, leaves or roots of plants and prepared recipes. These plants are used alone or in combination to control poultry diseases (Table 2). The most frequently used plants are Vitellaria paradoxa (39%), Khaya senegalensis (34%), Parkia biglobosa (24%), Anogéissus leocarpus (15%), Euphorbia poisonii (9%), Nicotiana tabacum (7%). The forms of use of these plants and the diseases targeted are summarized in Table 3. According to the users, all these recipes have a positive effect if they are used preventively. However, used in case of clinical signs as most breeders (88%), the result is always mediocre.

3.5 Constraints to the Development of the Breeding of the Guinea Fowl

Several constraints hamper the optimum profitability of raising guinea fowl in Togo such as the management and technical support services.

3.5.1 Constraints Related to Management and Technical Support Services

The constraints noted by the breeders are: remoteness of veterinary supply centers, lack of access to quality veterinary services, low rate of livestock training (30.19%), inadequate breeders’ support.

The problem of predators (93.40%), the problem of access to efficient veterinary products (79.25%) and the problem of lack of access to financial credits for livestock (56, 60%) (Table 4).

3.5.2 Technical Constraints Related to the Raising of Guinea Fowl in Rural Areas

The technical constraints of raising guinea fowl in “Région des Savanes” are: the high rate of illiterate breeders (70%) who do not facilitate the control and the implementation of the plans of prophylaxy and food.
Table 2  Plants used in traditional pharmacopoeia in the control of guinea fowl diseases in northern Togo.

<table>
<thead>
<tr>
<th>Name in French</th>
<th>Scientifique name</th>
<th>Name in local language(Moba)</th>
<th>Percentage of people using it</th>
<th>Part of the plant used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karité</td>
<td>Vitellaria paradoxa</td>
<td>Sang</td>
<td>39%</td>
<td>bark</td>
</tr>
<tr>
<td>Cailcédrat</td>
<td>Khaya senegalensis</td>
<td>Gbek</td>
<td>34%</td>
<td>bark</td>
</tr>
<tr>
<td>Néré</td>
<td>Parkia biglobosa</td>
<td>Doug</td>
<td>24%</td>
<td>bark, root</td>
</tr>
<tr>
<td>Bouleau d’Afrique</td>
<td>Anogeissus leioicarpus</td>
<td>Nasiick</td>
<td>15%</td>
<td>bark and Leaf</td>
</tr>
<tr>
<td>-</td>
<td>Euphorbia poissonii</td>
<td>Pène</td>
<td>9%</td>
<td>Chopped stem</td>
</tr>
<tr>
<td>Tabac</td>
<td>Nicotiana tabacum</td>
<td>Table</td>
<td>7%</td>
<td>stem and bark</td>
</tr>
<tr>
<td>-</td>
<td>Pteleopsis suberosa</td>
<td>Gbrek</td>
<td>6%</td>
<td>bark</td>
</tr>
<tr>
<td>Anacardier</td>
<td>Anacardia occidentalis</td>
<td>-</td>
<td>5%</td>
<td>bark</td>
</tr>
<tr>
<td>Kade</td>
<td>Acacia albida</td>
<td>kokon Goundipiéli</td>
<td>5%</td>
<td>bark</td>
</tr>
<tr>
<td>Neem</td>
<td>Azadirachta indica,</td>
<td>Titong</td>
<td>4%</td>
<td>Leaf and root</td>
</tr>
<tr>
<td>Figuier</td>
<td>Ficus exasperata</td>
<td>Kankansio</td>
<td>3%</td>
<td>bark</td>
</tr>
<tr>
<td>Manguier</td>
<td>Mangifera indica</td>
<td>Batousang</td>
<td>2%</td>
<td>bark</td>
</tr>
<tr>
<td>Gingembre</td>
<td>Zingiber officinale</td>
<td>Kakadoro</td>
<td>1%</td>
<td>root</td>
</tr>
<tr>
<td>Tamarinier</td>
<td>Tamarindus indica</td>
<td>Poug</td>
<td>1%</td>
<td>fruit</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Wobdibina</td>
<td>1%</td>
<td>root</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Kok</td>
<td>1%</td>
<td>root</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Chinchbk</td>
<td>1%</td>
<td>root</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Naton</td>
<td>1%</td>
<td>root</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Djoundjoun</td>
<td>1%</td>
<td>root</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Poupoum</td>
<td>1%</td>
<td>Leaf</td>
</tr>
<tr>
<td>Citronnier</td>
<td>Citrus sp.</td>
<td>Ankandjoli</td>
<td>1%</td>
<td>Lemon juice in drinking water</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Bongnoal</td>
<td>1%</td>
<td>bark</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Sterculia setigera</td>
<td>1%</td>
<td>Plant</td>
</tr>
<tr>
<td>Aloma</td>
<td>Vernonia amigdalina</td>
<td>Sowaka</td>
<td>1%</td>
<td>Leaf</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Djegore</td>
<td>1%</td>
<td>bark*</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>gbengbelgue</td>
<td>1%</td>
<td>root</td>
</tr>
</tbody>
</table>

* This tree would be toxic if used in high doses.

rations. Formulations of food rations are almost non-existent and no plan of prophylaxis is followed by the breeders. The poverty of food rations gleaned by birds, coupled with rough farming conditions, leads to poor zootechnical performance; Breeders do not recognize rustic guinea fowl strains. The start-up is poorly practiced among the breeders with 33.96% of the breeders who make the start in rambling and 13.21% who do it in conflagration pell-mell. Such an environment poses the problem of failure to respect zootechnical and hygienic standards and, above all, extrinsic and intrinsic requirements specific to each species, which probably leads to a drop in numerical productivity.

Fifty-two percent (52%) of the farmers are self-medicated and other farmers (9.43%) do not receive any treatment.

Biosecurity measures are non-existent in the farms (48.11% of the farmers give the dead guinea fowl to the children for consumption and 66% throw away the dead guinea fowl in the nature) [6, 26].

3.6 Axis of Development

The suggestions formulated by the farmers and considered as priorities for the optimization and development guinea fowl breeding are: Organization and training of breeders on breeding techniques; Technical support for breeders.

3.6.1 Need for Training through the Participatory Approach

Training programs for village livestock auxiliaries and herders as well as vaccination and deworming
Table 3  Endogenous know-how used in the control of guinea fowl diseases.

<table>
<thead>
<tr>
<th>“Disease”</th>
<th>Recipe</th>
<th>Route of administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lice and ticks</td>
<td>Sterculia setigera + potash</td>
<td>apply on the body</td>
</tr>
<tr>
<td>Lice in the henhouse</td>
<td>Anogéissus leiocarpus Nicotiana tabacum</td>
<td>Leave the leaves in the chicken coop; the lice are attracted by the smell and rise on the leaves. Once on the leaves one can then burn them to the fire</td>
</tr>
<tr>
<td></td>
<td>Barks of Parkia biglobosa or Mangifera indica or Vitellaria paradoxa+ bongnoal or Khaya senegalensis, or Ficus exasperata</td>
<td>Spread the tobacco powder in the chicken coop A plant can be used alone or in combination with others, all soaked in simple water. To this certain solution you add either traditional potash or some tetracycline capsules. Renew preparations every day</td>
</tr>
<tr>
<td>White diarrhea, presence of worms in droppings, drooping wings</td>
<td>Azadirachta indica, or Anacardia occidentalis or kok* or Lannea microcarpa or leaves of Nicotiana tabacum or Tamarindus indica fruit or root of Wodibina or root of Acacia albida or slices of Euphobia poisonii or leaf of Djoundjoun or leaf of Poumpoum</td>
<td>From the 5th day of the hatch give 2g / l in the drinking water for 3 days. It is allowed to pass for 7 days and then the treatment is continued for 3 days and so on for up to three months.</td>
</tr>
<tr>
<td></td>
<td>Miracle Powder of the Great Seminary Tetracycline Lemon Solution</td>
<td>To 10 ml of the lemon juice are added 10 capsules of tetracycline from the pharmacy; the whole is then dissolved in a liter of water. This solution serves as drinking water for guinea fowl for 7 consecutive days. A week is allowed and the treatment is resumed for one week and so on for up to 3 months.</td>
</tr>
<tr>
<td>Smallpox</td>
<td>Bark of Pteleopsis suberosa</td>
<td>In drinking water</td>
</tr>
<tr>
<td>Taming the guinea fowl</td>
<td>Sorghum germinated + Mustard</td>
<td>Mix the sprouted sorghum and the mustard and give to the guinea fowl</td>
</tr>
<tr>
<td>Hunting the hawks from the barnyard</td>
<td>Fruit of dioscorea</td>
<td>Dip the sours in the water and give this water to the guinea fowl</td>
</tr>
</tbody>
</table>

* Name of the plant in Moba (local language).

Table 4  Importance of the constraints/difficulties related to the development of the farming of guinea fowl in “Région des Savanes”.

<table>
<thead>
<tr>
<th>Constraints/Difficulties</th>
<th>Proportion of breeders (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problems of predators (hawks and ravens)</td>
<td>93.40</td>
</tr>
<tr>
<td>Problem of access to effective veterinary products</td>
<td>79.25</td>
</tr>
<tr>
<td>Financial problems (difficulty accessing credits)</td>
<td>56.60</td>
</tr>
<tr>
<td>Problems of farmers and herders (poisoning of guinea fowl)</td>
<td>16.98</td>
</tr>
<tr>
<td>Problem of space to develop the activity</td>
<td>5.66</td>
</tr>
<tr>
<td>Problem of envy (theft of guinea fowl)</td>
<td>16.98</td>
</tr>
</tbody>
</table>

...
self-learning will create a direct connection between training and the challenges that breeders encounter when they apply the new methods.

The reasons of organization of the breeders in associations will put forward the solidarity between breeders. These associations could serve as a channel for sensitization or training and intermediate to negotiate credits for members.

3.6.2 Need for Material Support

The accompanying measures sought by breeders relate to easy access to livestock equipment and products and the establishment of a credit granting system adapted to the livestock sector. There is also a need to increase the supply of veterinary products by bringing them closer to the village level. The local veterinary services set up [6] through the AVEs must be supported and strengthened. Similarly, the current system for monitoring the quality of veterinary products placed on the market must be more dynamic and rigorous.

Predator problems (93.40%) and poisoning of guinea fowl during the growing season (16.98%) are constraints for family rearing. Against predators, support should be given for the construction of improved traditional poultry houses promoted by the PAEF (Projet d’Amélioration de l’Elevage Familial), ASATO (Appui à la Sécurité Alimentaire au Togo) [6] and most recently Agricultural Sector Support Project.

Again problem of space to develop the activity and problem of envy (theft of guinea fowl) support should be given to farmers to build fences around chicken coops. This will prevent the birds from wandering.

4. Conclusions

This survey revealed that guinea fowl breeding in rural areas has always remained traditional. The major constraints of guinea fowl farming in the Savanes region of Togo are:

(1) The remoteness of the supply centers for veterinary products, the lack of access to quality veterinary services, the low rate of training for livestock farmers, the lack of support for livestock breeders;
(2) The high rate of illiterate breeders that does not facilitate control and enforcement of prophylaxis and dietary plans;
(3) The problem of predators and access to credit for livestock farming;
(4) The absence of associations of guinea fowl breeders.

The permanent unavailability of veterinary products leads breeders to seek alternative endogenous solutions through the use of bark, leaves or roots of plants to fight against poultry diseases. It is therefore important to verify the effectiveness of these endogenous or local practices for improving the breeding of guinea fowl in rural areas.

References


