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Research Article

Assessment on Poisonous Plants of Livestock and their Impacts on Livestock Producers in Wondo Genet, Sidama Zone, South Nation Nationalities and People Regional State, Ethiopia

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Abstract

This study was conducted in Wondo Genet, Sidama Zone, SNNPRS, Ethiopia from November 2017 to May 2018 to assess toxic plants which well-known among society of the area, potential to cause intoxication of livestock and its significant impacts on livestock producers. Totally, 300 individuals composed of 260 animal owners, 15 animal health practitioners, 13 especially selected knowledgeable people and 12 traditional animal healers were interviewed based on structured questioner. Out of 300 individuals 245 (81.7%) were declared the existence of poisonous plants. During assessment of presence of impacts on livestock producers in different ways 110 (44.9%) of them complained its presence but 135 (55.1%) only heard such impacts from the others and knew the presence of such plants and some information about it. During field visit 30 poisonous plants that suggested by those respondents were collected. From these plants, *Amaranthus spp. Aspera* (21.2%), *Oxalis corniculate* (17.6%), *Prunus africana* (10.2%), "*gaggassa"* (local name) (8.6%), ''*haruufichcho*'' (grass sp.) (8.2%), *Euphorbia cotinifolia* (3.7%), *Ricinus communis* (3.3%), *Brucea antidysenterica* (2.9%), *Lantana camara* (2.5%), *Medicago sativa* (2.5%) were complained as cause of toxicity frequently. Season of the year and reason why animal consume the poisonous plants were some of conditions which known to aggravate the exposure of livestock to poisonous plants. In this study, rainy season was documented as main season of the year plant poisoning occur and purposeful consumption also accounts majority from reasons why animal consume. The study also indicate that bovine was more susceptibly for number of poisonous plants 25 (83.3%) and followed by ovine for 18 (60.0%), caprine for 17 (56.7%), equine for 4 (13.3%) and all livestock species for 2 (6.7%) as suggested. Bloat, diarrhea, abdominal pain, difficulty breathing, skin lesion/irritation or alopecia, vomiting, abortion, photosensitization, bloody urine and death are mainly and frequently raised adverse effects of poisonous plants. As this assessment shows, there are poisonous plants and impacts on livestock producers at study area; that needs involvement of responsible individuals to do further studies on identification of poisonous plant and extraction of ingredients in it and find solution to alleviate the outcome of poisonous plants.

Keywords: Impacts; Livestock; Livestock Producers; Poisonous Plants

Introduction

Poisonous plants that affect animals are a major concern for the practicing veterinarian and livestock producer over the world. This may be due to great effects it causes on animal health and production loss as a result. The problem of such toxic plants may be greater in countries possess higher plant biodiversity. This means if the biodiversity of plants on one area is high, the probability to get greater number of poisonous plant and the risk of toxicity increased [1]. Our country, Ethiopia also possesses diverse agro climatic zones, due to this and the like reasons enjoy wide ranges of plant biodiversity. These conditions contribute their own impacts on the country to being home for different toxic plants that cause adverse effects even life treating hazards on livestock [2].

From the known poison around the world, plants share third largest division. Since they cover the major parts of livestock feed, animals are expected to be poisoned by consuming such poisonous plants. Poisoned animals especially livestock are the first to get hazard and develop acute or chronic illness [3]. Ranges of toxic plants have caused broad losses to the livestock industry in many

parts of the world predominantly, also in East Africa including Ethiopia, from the time when the days of early settlement. They are still causing significant harms in many areas, this implies that poisonous plants have been exerted great load on poisoned animals themselves and their producers as outcome [4].

The most ancient poisons came from plants, it seems for that reason and others many members of the plant kingdom have toxins that can be highly poisonous, even lethal if ingested still today. It is true as there are all-embracing developments and implementation of toxicology surveillance systems, but still poisoning through consuming poisonous plants continues being appreciable cause of morbidity and mortality of animals [5].

Poisonous plants can harm entire organs of the body, while some plants having several toxic principles that affect different systems. The main effect may depend on the condition like, maturity stage, part and amount of the plant consumed, and the species and susceptibility of the animal. The active principles and mode of action are known for many plants, while others are known to induce poisoning, but the mechanism of intoxication has yet to be clarified. History and clinical symptoms are important to diagnose and take action before animal die due to poisonous plants, while postmortem findings and laboratory tests can be analyzed for farther evidence and confirmation. Most of the time plant poisoning results from the toxic composition that found in plant itself, on other hands poisoning can be result of contaminants found on or mixed with non-toxic plants such as, mycotoxin synthesizing fungi, insects, helminths and microorganisms like bacteria [10]. Under normal conditions, some poisonous plants consumed by livestock as familiar diets without negative effects on the animals, poisoning occurs only when these animals are hunger or under other stress conditions to eat too much and too fast [6].

Economic losses which caused by such poisonous plants can be grouped as direct and indirect. Decrease in productivity and health problem of livestock considered as direct losses of poisonous plants and while, the costs played for prevention, treatments, management of poisoned animals and the like are indirect losses caused by poisonous plants [8]. Additionally, poisonous plants affect producers through increased death of animals, delayed weight gain, reproductive inefficiency and poisonous plant contaminated pasture. Losses caused by inefficient reproduction may be abortion, infertility, giving birth to weak or deformed offspring on female and permanent or temporary infertility on male. The outcome of these reduces the number of animal in generally and cause great impacts on producers [9].

The poisonous plants contain powerful toxic ingredients (phytochemicals) if introduced in to the body of any animal, may be of relatively smaller quantity, will affect harmfully and may be fatal at times. These toxic ingredients act by injuring the protoplasm of the cell and the harmful effects produced may be immediate or accumulative [9]. It is indisputable that animals poisoned adversely by consuming poisonous plants purposefully, even though frequently animals poisoned by toxic plants unintentional and following unfavorably conditions like pastures are poor due to drought, wild fire, overstocking and trampling of the grazing and consumption of contaminated feed with poisonous plant is also possible. So, such conditions that aggravated the exposure to poisonous plants also need consideration among all responsible individuals [10].

As determined from the above, even though plants have vital nutritional values, provide the normal atmospheric oxygen and have many other importance, without compromising they may cause life threatening impacts on livestock if they are toxic [11]. Furthermore, there is no habit among veterinarians to write case reports; because of this, there is no documented literature in the area that describes the occurrence of poisonous plants. Hence, the attention of all professionals is needed to settle down effects of poisonous plants on animal health and productivity. Therefore, the objectives of this study were to investigate toxic plants and assess the knowledge of respondents on the toxic plant and their toxicity effect.in study area, to provide scientific names of identified major toxic plants in study area, to explore the main impacts of toxic plants on livestock producers in the area through interviewing perspective individuals and to picture treatment, control and prevention measures practiced among local people toward intoxication caused by toxic plants.

Materials and Methods

Study area

The study was conducted from November 2017 to May 2018 in Wondo Genet woreda, Sidama Zone, South Nation Nationalities and People Regional State, Ethiopia. Wondo Genet is every green area located about 20 km away from Hawassa and about 270 km away from Addis Ababa. The area covered 14,702.34 hectares area and has a latitude and longitude of 7°19' N and 38°38'E with an elevation of 1,700 - 2,620 meters above sea level. The temperature ranges from 10.2°c - 30.1°c and rainfall accounts about 1000 mm. According to woredas livestock and fisher resource development office 2010 E.C extension basic information, the woreda has livestock population about 41,809 cattle, 23,259 ovine, 12,138 caprine, 2,608 equine and 87,787 poultry.

Study population

The individuals targeted for this study were livestock owners, traditional animal healers, especially selected knowledgeable informants and animal health practitioners. The total of 300 individuals were interviewed and from which, 245 respondents were found.

Study design and sampling methods

In SNNPRS, Sidama Zone Wondo genet woreda was purposely selected based on proximity to externship site and plant biodiversity of the woreda. From 15 kebeles7 kebeles (Baja fabica, Chuko town, Edo, Gikkeginna, Kella-01, Woteragendo and Woterasoyama) were selected after woredas livestock and fisher bureau guidance and distribution of plant biodiversity and geographical phenomena of the area were observed. Based on structured questioner, voluntary individuals like; livestock owners when they were with their animals, traditional animal healers and especial knowledgeable people were as appointment and most animal health practitioners at their working place were interviewed. During application of structured questioner and field observation, all relevant information like local name of poisonous plant, common habitats, seasons of the year toxicity problems more amplified, impacts of toxic plants, species of animals mostly affected, expected reasons for the animal consumption and treatments traditionally used and the like were interviewed. Farther more, to identify the scientific names of the poisonous plants and soil types dada of the areas where the poisonous plants were widely distributed, Wondo Genet College of Forestry and Natural Resource (WGCFNR), Hawassa University was consulted.

Study methodology

The questionnaire was conducted through interviewing voluntary livestock owners, traditional animal healers, special selected knowledgeable people and animal health practitioners. To identify the scientific names of the poisonous plants and climate and ecological dada of the areas where the plant was widely distributed, Wondo Genet College of Forestry and Natural Resource (WGCFNR), Hawassa University was consulted.

Sample collection and identification

The sample of each poisonous plant which rose from respondents and collected during field visit was pressed in between fold of white paper and stretched with respect to surface of pages to prevent damage, crush up and loose of structure after dried. Then the samples were taken to Herbarium of Wondo Genet College of Forestry and Natural Resource, Hawassa University and required information were recorded from documentation.

Data analysis and management

The information that was gathered through questionnaire on toxic plants of livestock was coded and entered to Microsoft Excel 2013 spreadsheet and it was filtered. SPSS version 20 software was used for the analysis. Descriptive statistical methods such as frequency and percentages were employed to analyze and summarize the data on toxic plants.

Results

Out of 300 individuals (260 animal owners, 15 animal health assistants and veterinarians, 13 especially selected knowledgeable people and 12 traditional animal healers) interviewed based on structured questioner 245 (81.7%) were declared the existence of poisonous plants. These include 206 (79.2%) animal owners, 15 (100%) animal health practitioners, 12 (92.3%) especially selected knowledgeable people and 12 (100%) traditional animal healers (Table 1).

Individuals candidates to participate in interview	Interviewed	Respondents	% from each interviewed	% from total respondents
Animal owners	260	206	79.2%	84.1%
Animal health practitioners	15	15	100%	6.1%
Knowledgeable persons	13	12	92.3%	4.9%
Traditional animal healers	12	12	100%	4.9%
Total	300	245	81.7%	100%

Table 1: Summary of individuals interviewed and participated for the response from each group with percentage.

Farther more 110 (44.9%) of respondents expressed impacts they faced through their life in different ways. The ways described include; production losses/organs defects of their animals (27 responses), death of their own animals (21 responses), who came across affected/died animals rather than their own (85 responses) and who (animal health practitioners and traditional animal healers) treated the affected animals but the animal was died (12). In other words, these responses were the answer given for the inquired question as 'how many times they were faced that impacts on their or others' animal through their life'; once, twice or more than two times. The remain 135 (55.1%) only heard such impacts from the others and knew the presence of such plants and some information about it as indicated in table 2 and figure 1.

During field visit of this assessment 30 poisonous plants that suggested by those respondents were collected. From these plants,

Impacts on animal producers	Frequency of impact	No. of responses/respondents	Percent
Production losses/ organ defects on animal(own)	Once	25	10.2%
	Twice	--	--
	>2 times	2	0.8%
Animal loss due to death (own)	Once	14	5.7%
	Twice	3	1.2%
	>2 times	4	1.6%
Who came across affected /died animal rather than own	Once	47	19.2%
	Twice	5	2.0%
	>2 times	33	13.5%
Treated affected animal but died (Vet/ AHA or TAH)	Once	5	2.0%
	Twice	1	0.4%
	>2 times	6	2.4%

Table 2: Summary on impacts of poisonous plants on livestock producers.

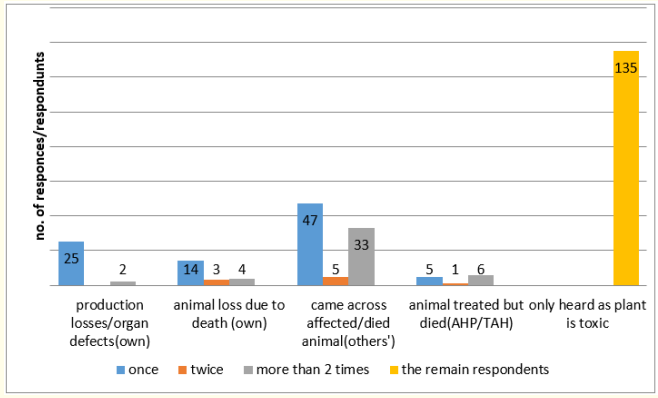

Figure 1: Summary on impacts of poisonous plants on livestock producers.

Amaranthus spp. aspera (21.2%), *Oxalis corniculate* (17.6%), *Prunus africana* (10.2%), "*gaggassa*" (local name) (8.6%), "*haru-ufichcho*" (grass sp.) (8.2%), *Euphorbia cotinifolia* (3.7%), *Ricinus communis* (3.3%), *Brucea antidysenterica* (2.9%), *Lantana camara* (2.5%), *Medicago sativa* (2.5%) were frequently complained poisonous plants. Their and the remains' local and botanical name, type, toxic part/s, botanical frequency, common habitats, season mostly emerged, and livestock species mostly affected were indicated in table 3.

Shrubs 16 (53.3%) cover greater portion from types of poisonous plants in this study and followed by trees 6 (20.0%), grasses 4 (13.4%), flowering plants 2 (6.7%), crop 1 (3.3%) and fungous 1 (3.3%). As respondents' complaints, whole parts share majority 174 (71.0%) of poisonous parts that caused adverse effect after consumed and/or contacted by livestock. Then followed by leaves 43 (17.6%), fruit 8 (3.3%), fruits/leaves 8 (3.3%), fluid/leaves 6 (2.4%), steam 4 (1.6%), and fruits/seeds 2 (0.8%). Farmland/ rangeland are common habitat for many 96 (39.2%) poisonous plants and farmland 77 (31.4%), forest 50 (20.4%), rangeland/ road sides 10 (4.1%), rangeland 5 (2.0%) roadside/on fence 3 (1.2%), rangeland/forest 2 (6.7%), and farmland/rangeland/forest 2 (3.3%) are followed as respondents' rank (Table 3).

Local name	Botanical name	Livestock species most affected	Clinical signs/adverse effects	Toxic part/s
Alfalfa (eng)	*Medicago sativa*	Bovine/caprine	Bloat/diarrhea	0
Argiisa (sid)	*Aloe spp.*	Bovine/ovine	Abdominal pain/vomiting/ diarrhea/ red urine	0
Banje (sid)	*Datura sramonium*	Bovine/ovine/caprine	Incoordination/convulsion/death	
Bashanqa (sid)	*Sorgum bicolor*	Bovine	Boat/diarrhea/depression	0
Binjille (sid)	*Euphorbia schimperiana*	Bovine/ovine/caprine	Inflammation of vulva/ penis/ eyes	3
Borbodho (sid)	*Solanum incanum*	Bovine/ovine/caprine	Irritation/restlessness/abdominal pain/diarrhea	4
Buqibure (sid)	*Arisaemae meaphyllun*	Bovine/caprine	Dyspnea/coma/death	0
Carre (sid)	*Euphorbia abyssinica*	All livestock	Blindness/skin lesion/ alopecia	3
Dandaro (amh)	*Argemone mexicana*	Bovine/ovine/caprine	Weakness/hemorrhagic enteritis/death	0
Daraarotehaqqe (sid)	*Nerium oleander*	Equine/ovine	Gastroenteritis/abdominal pain/sweating	0
Deleqe (sid)	*Ensete ventricosum*	Bovine	Bloat/abdominal pain/diarrhea	2
Diilallessa (sid)	*Grass spp.*	Bovine	Bloat/difficulty breathing	0
Duumodarcho (sid)	*Euphorbia cotinifolia*	Bovine/ovine/caprine	Skin lesion/blindness	5

Faradigame (sid)	*Amantia spp.*	Bovine/ovine/caprine	Breathing problem/coma/Death	0
Haruufichcho (sid)	*Grass spp.*	Bovine	Bloat	0
Haxaawo (sid)	*Brucea antidysenterica*	Bovine/equine	Alopecia/skin lesion	2
Herraase (sid)		Caprine	Bloat/death	4
Gaggassa (sid)	*Not found*	Bovine/ovine/caprine/equine	Vomiting/bloat/Difficulty breathing/death	1
Garbichocho (sid)	*Prunus africana*	Bovine/ovine/caprine	Abdominal pain/bloat	1
Gororro (sid)	*Oxalis corniculata*	Bovine	Bloat/dyspnea	0
Guwinogide (sid)	*Hordeum spp.*	Bovine	Bloat/death	0
Kokkoso (sid)	*Ptridium aquilinum*	Bovine/ovine/caprine/equine	Bloody urine/nerves sign	0
Laallesa (sid)	*Urticadioica*	Bovine/ovine/caprine	Skin irritation	1
Laalunxe (sid)	*Commelina benghulensis*	Bovine/ovine/caprine	Diarrhea	0
Qoboichcho (sid)	*Ricinus communis*	Bovine/ovine/caprine	Abdominal pain/diarrhea/Death	4
Raafo (sid)	*Amaranthus spp. Aspera*	Bovine/ovine	Bloat/diarrhea/Dyspnea/death	0
Shuramocarre (sid)	*Euphorbia trucalli*	Bovine/ovine/caprine	Blindness/skin loss/abortion	0
Soonne (sid)	*Girardinia bullossa*	All livestock	Irritation	0
Yawafqolo (amh)	*Lantana camara*	Bovine/ovine/caprine	Photosensitization	0
Yaythareg (amh)	*Stephania abyssinica*	Ovine	Nausea/vomiting	1

Table 3: Summary of name of toxic plant, livestock species mostly affected, clinical signs, and toxic part/s.

Season of year and reason why animal consume the poisonous plants are some of conditions which known to aggravate the exposure of livestock. In this study, rainy season was recorded as main season of the year toxicity occur, which account (60.8%) and followed by, throughout the year (33.1%), dry season (2.9%) and unknown season (3.2%). Purposefully consumption of poisonous plants also covers major (59.2%) parts and followed by hunger/feed shortage (22.4%), accidentally/hunger (12.2%), body contacts (4.9%) and purposefully/hunger (1.3%) were analyzed with respect to respondents' response from reasons why animal consume (Table 4).

Reasons	No. of respondents	percent	No. of poisonous plant	Percent
Purposefully	145	59.2%	8	26.7%
Hunger/feed shortage	55	22.4%	6	20.0%
Accidentally/hunger	30	12.2%	9	30.0%
Body contact	12	4.9%	4	13.3
Purposefully/hunger	3	1.2%	3	10.0%
Total	245	100.0%	30	100.0%

Table 4: Percentage of reasons why animal consume the poisonous plants.

From the three main types of soil at study area majority of poisonous plants 12 (40.0%) grown on both loamy, clay and sandy soil types 11 (36.7%) on loamy and sandy 6 (20.0%) loamy and clay and 1 (3.3%) on clay and sandy soil types (Figure 2). Many adverse effects claimed by respondents as a result of poisonous plants are, bloat, diarrhea, abdominal pain, difficulty breathing, skin lesion/irritation or alopecia, vomiting, abortion, photosensitization, bloody urine and death are mainly and frequently raised once.

Most of respondents were suggested as they had their own prevention mechanisms. Some of these mechanisms are prevent animal from such plants dominated area, remove the plants from range lands, avoid giving some plants for hunger, thirst or emaciated animals and not allow the animal to go out in the morning before dew removed/dried. Additionally, some of plants which normally used as feed of animal are cut and dry on sun light, remove/detach the poisonous parts that expected to cause adverse effect on animal and select and throw plants contain worms or insects.

Figure 2: Summary of Soil types with respect to number of poisonous plants.

Traditional remedies are widely used to treat adverse effects of poisonous plants as respondents' suggestion Some of such remedies are, local 'Areke', 'Tenadam' (*Ruta chalepensis*), onion, ginger, tobacco, warm water, 'Mooca' (extract of 'Kocho'), drenching with solution of many combination of other plant extracts, moving affected animals 'her and there' are the main. Finally, some of respondents remarked that many plants which considered as poisonous, are non-toxic feed in normal condition and become toxic depending on especial circumstances like, amount and growing stage of the plants, while worms/insects attachment or inters on/into it, time and season (like in the morning and rainy season) plant consumed, and age and body condition of animals.

Discussion

This study indicated that plant poisoning has been caused great health problem on livestock and exerted significant impacts on livestock producers. At the time of structured questioner, 300 individuals were interviewed, and 245 of them given essential suggestions and indicated that the existence of toxic plants and considerable impacts on the study area in general. These respondents specified 30 plants as poisonous to livestock. And from these, *Amaranthus spp. aspera, Oxalis corniculata, Prunus africana,* ''*gaggassa*'' (local name), ''*haruufichcho*'' (*grass spp*.), *Euphorbia cotinifolia, Ricinus communis, Brucea antidysenterica, Ptridium aquilinum* were some of the poisonous plants complained mainly and frequently. The *Amaranthus spp., Prunus africana, Ricinus communis* and *Ptridium aquilinum, Lantana camara,* and *Urtica spp.* were reported from different areas of the country [4,12].

Additionally, *Euphorbia spp., Daturaspp., Pteridium aquilinum*, *Ricinus communis* and *Solanum spp.* from S. Africa [10], and in addition, *Ricinus communis* from Nigeria [3] were the reported for their poisonous effects in Africa. Also, from outside of African continent; Colombia, like *Pteridium aquilinum* [13] additionally, *Amaranthus spp., sorghum spp., solanum spp.* And *prunus spp.* [1], and from California like *Nerium oleander* [14] were reported. In this study *Amaranthus spp. aspera* were most frequently (21.2%) suggested poisonous plant species and one study from Nekemte area, East Wollega Zone of Oromia Regional State was reposted supporting idea as *Amaranthus spp.* were the most frequently complained toxic plants [15].

Shrubs 16 (53.3%) cover greater portion from types of poisonous plants in this study and followed by trees 6 (20.0%), grasses 4 (13.4%), flowering plants 2 (6.7%), crop 1 (3.3%) and fungous 1 (3.3%). Other studies from Ethiopia, Lare and Itang Districts Gambella Regional State [16] and Nigeria, Sokoto State [3] stated shrubs as the main sources of plant toxicosis, even though these studies characterized shrubs and trees as only types of poisonous plants.

Whole parts share majority 174 (71.0%) of poisonous parts that caused adverse effect after consumed and/or contacted by livestock. Then followed by leaves 43 (17.6%), fruit 8 (3.3%), fruits/leaves 8 (3.3%), fluid/leaves 6 (2.4%), steam 4 (1.6%), and fruits/seeds 2 (0.8%). This also agree with research findings from Nekemte town area [15] and central Ethiopia [4].

Farmland/rangeland in together, are common habitats for many 96 (39.2%) poisonous plants and farmland 77 (31.4%), forest 50 (20.4%), rangeland/road sides 10 (4.1%), rangeland 5 (2.0%) roadside/on fence 3 (1.2%), rangeland/forest 2 (6.7%), and farmland/rangeland/forest 2 (3.3%) are followed as respondents' rank. As [16] reported the common plants were located in the riverbank (watering point) (43.8%), rangeland (23.3%), backyard (15.8%), and farmland (14.4%). As [4] study also most of the toxic plants were located near the farmland together with forage plants. while from abroad, Nigeria [3] described as, about 95.4% of respondents replied toxic plants were located around farmland/range land particularly and only the remain (4.6%) types of toxic plants were found around river banks and water points. Actually, there have been variation in results among studies, this may be due to the different conditions of the areas and also the difference of variables characterized.

As found response indicated, animal more poisoned at rainy season (60.8%) and throughout the year (33.1%), dry season (2.9%) and unknown season (3.2%) were followed. This result also agreed with other former studies. These studies indicated as animals were more poisoned at the start and end of rainy season [12,15]. Bovine

is more exposed species of livestock, and then ovine, caprine and other species of livestock at this study area. According to [15] bovine species is the most frequently poisoned livestock followed by ovine and caprine and equine and poultry are less susceptible species. Livestock at study area exposed to poisonous plants by consuming purposefully (59.2%) in more extent as respondents' response, and hunger/feed shortage (22.4%), accidentally/hunger (12.2%), body contacts (4.9%) and purposefully/hunger (1.3%) are followed. But [16] stated given priority to food shortage and then accidental ingestion with feed nutritional deficiency, and excess consumption were followed as predisposing factor. The difference might come from all-embracing variation of the area, growing nature of plants and consumption habit of animals found in both areas.

Present study tried to express the main impacts of poisonous plants on livestock producers through interviewing respective individuals on production losses/organ defects and death caused by poisonous plants on their own animals, whether they came across died/affected animals rather than their own animals and whether they treated poisoned animals but passed way (AHP and TAH) through their life or work experience (Figure 1). This result is tantamount with the report from Lare and Itang Districts, in Gambella Regional State with some extent. As [16] explanation the impact of toxic plants extends from simple signs (30.1%), organ impairment (24.7%), production decrement (24.7%) and death (20.5%).

Finally, some of respondents remarked that many plants which considered as poisonous, are non-toxic feed in normal condition and become toxic depending on especial circumstances like, amount and growing stage of the plants, while worms/insects attachment or inters on/into it, time and season (like in the morning and rainy season) plant consumed, and age and body condition of animals. Similarly, [10] stated as most of the time plant poisoning results from the toxic composition that found in plant itself, on other hands poisoning can be result of contaminants found on or mixed with non-toxic plants such as, mycotoxin synthesizing fungi, insects, helminths and microorganisms like bacteria.

Conclusions and Recommendations

Depending on this study, the presence of livestock health problem and significant impacts on livestock producers as a result of plant poisoning was cognized. Most of individuals declared the existence of poisonous plants and about half of them complained impacts on producers in different ways. *Amaranthus spp. aspera, Oxalis corniculata, Prunus africana* and '*gaggassa*' (local name), are most frequently claimed species that caused significant health deviation, production loss and also death of many livestock. The outcome consistently harms producers because these and the remnant poisonous plants cause adverse effects like; bloat, diarrhea, abdominal pain, difficulty breathing, skin lesion/irritation or alopecia, vomiting, abortion, photosensitization, bloody urine and death of animal. Also, this study indicated that; shrubs, whole parts, and farmlands/rangelands from plant types, poisonous parts and common habitats of poisonous plants respectively, have major contribution to cause toxicity of animals when compared with their corresponds.

Therefore, based on the above conclusions the following recommendations are forwarded:

- Each poisonous plant should be identified for its poison and ingredient/s it contains.
- Prevention, control and remedies which traditionally practiced among livestock owners should be supported with farther studies to overcome impacts of poisonous plants.
- Expected predisposing factors should be known more and avoided.
- Collaboration of professionals and participation of government is needed to reduce losses.

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