

Syria

# Agricultural Inputs Market Monitoring initiative (AIMMi)

Bulletin May, 2019. North-East Syria Issue 1



WHOLE OF SYRIA (WoS)  
FOOD SECURITY SECTOR  
Strengthening Humanitarian Response



## Introduction

With the aim to inform humanitarian actors cash, voucher and in-kind programming, iMMAP, Food Security and Livelihoods (FSL) Cluster members, and Agriculture Working Group (AWG) members kicked off the Agriculture (Crops and Livestock) Input Monitoring Initiative in North East Syria (NES) in May 2019.

The plan is to conduct a quarterly monitoring exercise of agriculture markets in Syria to assess the availability, country of origin and prices of agricultural inputs. This initiative is based on joint efforts from FSL cluster members collecting field data, iMMAP designing the data collection tools, and drafting the analysis report and dashboard, while FSL cluster took the lead in coordination along with facilitating the needed discussion and data validation. The quarterly bulletin, dataset and dashboard are distributed via the FSL distribution list.

Agricultural inputs consisting of 116 items were selected in close coordination with the FSL Cluster and AWG members of the NES hub. These agricultural inputs refer to those that were most commonly available and used prior to the conflict and are still used today, as well as those to prioritize, based on feedback solicited from FSL partners from a programming point of view, both operational and coordination, on an ongoing basis.

The 116 agricultural inputs were mainly composed of seeds (summer and winter vegetables seeds, winter and cash crop seeds), crop inputs (fertilizers, pesticides, herbicides, land services, fuel, tools, and wages), and livestock herd plus livestock inputs (specifically animal feed). Data collection for the first round in NES was conducted during the month of May 2019. Ten FSL partners participated in the data collection across nine districts in four governorates: Aleppo, Al-Hasakeh, Ar-Raqqa and Deir-ez-Zor. Eighty percent of the interviews were conducted at Al-Hasakeh governorate.

Data was collected via in-person key informant (KI) interviews with 12 different market actors that include and are not limited to crop producers: herders, traders, agricultural pharmacy, farm owner, member of local council agriculture/ livestock committee, and a Veterinary Service Expert. Due to the data quality and number of received data points per the agricultural input, iMMAP was only able to report **104 items** out of the 116 Agricultural inputs assessed items across the agricultural market.

## Key Findings

- **Seasonality:** Data for this round of agricultural input price monitoring was collected in May 2019 when the harvest of some summer vegetables like cucumber started, likewise for barley.
- **Respondents:** Data was collected from 924 respondents, of whom majority were crop producers (30%), followed by agricultural pharmacy (22%), then traders (14%), the rest being mostly composed of different stakeholders as key informants.
- **Availability:** During May 2019, study respondents reported that crops and livestock inputs were generally available in the local market across the assessed areas of NES region. Forty-six percent of respondents reported that crops and livestock inputs were always available, and forty-eight percent expressed the inputs availability as frequently available.
- **Affordability Challenges:** The top three reported challenges that market actors faced in affording the agricultural inputs were: scarcity due to off-season/seasonality (41%), high prices (35%), and low purchasing power (9%).
- **Country of Origin:** The main reported country of origin for crops and livestock inputs was Syria (75%), this was followed by China (8%), then United States of America (7%) and finally Turkey (5%). However, these numbers differed depending on the type of inputs. For example, China came first, followed by Syria then Turkey for the agro-chemical inputs like fertilizers, pesticides, and herbicides.
- **Source of access:** Farmers reported that local traders (both wholesalers and retailers) were the main source of access for farmers to obtain the assessed agriculture inputs from. However, the local authority was identified as the main access source for six main inputs (fuel, urea fertilizer – 46%, Soluble (all formulas) with origin, wheat bran, and hard/soft wheat seeds).
- **Exchange rate/Prices:** SYP/USD exchange rates identified across all assessed areas reflected the Syria black market rates at a median of 569 SYP per 1 USD. Generally, eighty-two of the assessed items showed an increase in median price during the reporting period, in 2019, as compared to median price in 2018. The median increase percentage was twenty percent. Cost of harvesting one donum of wheat recorded the highest increase rate, one-hundred percent (from 2,000 SYP/ in 2018 to 4,000 SYP/ in 2019). This was followed by live sheep, milking purposes, with eighty-eight percent (from 40,000 SYP/ in 2018 to 75,000 SYP/ in 2019). Live sheep, meat purposes, came next with seventy-five percent (from 40,000 SYP/ in 2018 to 70,000 SYP/ in 2019). Contrastively, eight items showed a decrease in the median price during the reporting period in 2019 in comparison with median prices in 2018. Median decrease percentage was ten percent. Price of 1kg of chickpea seeds recorded the highest decrease rate with thirty-one percent (from 400 SYP/ in 2018 to 275 SYP/ in 2019). Fee of renting one grazing donum came next with a twenty percent decrease (from 2500 SYP /in 2018 to 2000 SYP/ in 2019). Then, the monthly cost of grazing one livestock head which decreased by seventeen percent (from 6,000 SYP/ in 2018 to 5000 SYP/ in 2019). Furthermore, fourteen items showed stability in the median prices. The fourteen items are: 1) cost of plowing, using disc, 2) cost of sowing, using seeder, 3) 1kg of cotton silage, 4) 1kg of barley seeds, 5) 1kg of fungicide – Copper Sulphate, 6) 1kg of hard wheat seeds, 7) 1 l of organic fertilizer, 8) 100g of high phosphorus, higher than 45, 9) 50kg of fodder – Mixture for breeding, 10) Cost of Enterotoxaemia vaccination per sheep, 11) Daily wages of skilled livestock labor, 12) Daily wages of un-skilled livestock labor, 13) Mattock, and 14) Styro-box.
- **Interactive Dashboard:** To ensure that the FSL members utilize the data in a more efficient manner, an interactive dashboard has been created through this [link](#)

## Availability

During the reporting period, respondents reported that crops and livestock inputs were generally available in the local market across the assessed areas of the NES region. Forty-six percent of respondents reported that crops and livestock inputs were always available, while forty-eight percent expressed the availability of these inputs as frequently available. There was no correlation between the availability of agricultural inputs and respondent type, where the availability of the assessed items was similarly reported by different types of respondents during the reporting period in May 2019.

Although data showed that items were widely available, respondents reported nine main affordability challenges. The top three reported challenges that market actors faced in affording the agricultural inputs were: scarcity due to off-season/seasonality (41%), high prices (35%), and low purchasing power (9%).

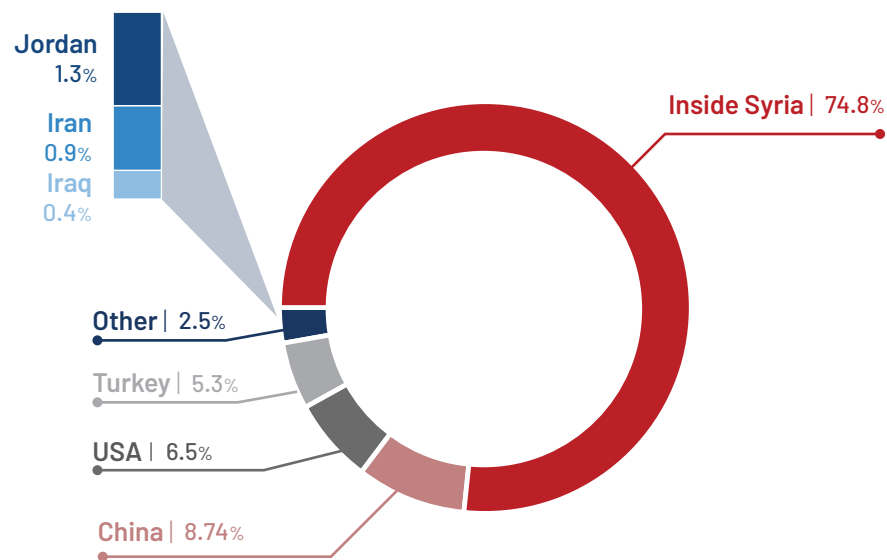
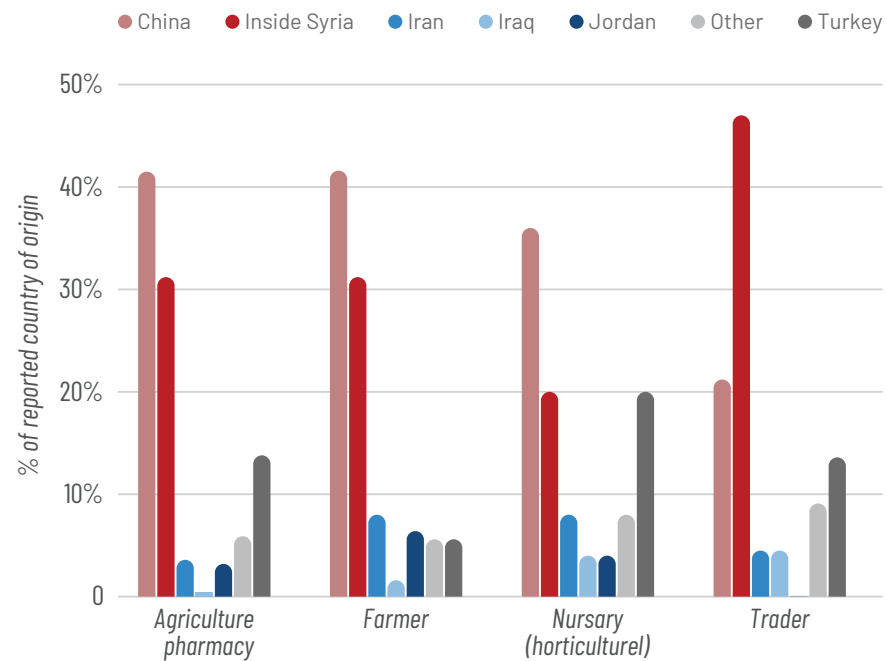
**Figure 1.** Agricultural and Livestock Inputs Affordability Challenges



## Country of Origin

The country of origin with the highest reported percentage of crop and livestock inputs was Syria (75%), followed by China (8%), then the United States of America (7%) and finally Turkey (5%). However, the type of inputs differs from one country of origin to another. Below are the prominently-reported countries of origin, classified by the type of inputs: individual item at each inputs type are listed in Annex 1 (pg. 12).

- The majority of respondents (99.73% reported Syria as the origin of **Winter and Cash Crops Seeds**. Just 0.83% of traders (with equal to 0.27% of the total respondents) reported Turkey as their origin of winter and cash crops seeds.
- Eighty-five percent of participants reported Syria as their country of origin for **Winter Vegetables Seeds**, followed by USA (8%) and Turkey (5%). This was slightly different for Farmers, 84% of farmers reported Syria as country of origin, this was followed by Turkey with 8%. USA came next with 5%.
- Fifty-five percent of respondents reported that Syria was considered as the main origin of **Summer Vegetables Seeds**, this was followed by USA (28%), and then Turkey in third (11%). There was no correlation between the country of origin of the assessed agricultural inputs and respondent type.
- China, Syria, and Turkey were considered the main countries of origin for **Agro-Chemical Inputs** (fertilizer, pesticide, and herbicide), which were available in the local market in NES. There was strong correlation between the country of origin of the assessed agricultural inputs and respondent type as displayed in Figure 3.
- During the reporting period, Syria came as the first country of origin for the **Agricultural Tools and Fuel** in the NES local market (88%). China came in second with 11%.
- All respondents reported that the main country of origin for the **Livestock Herd** in the NES local market which is Syria. There was no correlation between the country of origin of the assessed agricultural inputs and respondent type.
- Ninety-two percent of respondents reported that the country of origin for **Livestock inputs** (mainly animal feed for cow, sheep, and poultry) was Syria, followed by Turkey with (3%) and Jordan with (3%). There was no correlation between the country of origin of the assessed agricultural inputs and respondent type.

**Figure 2.** Agricultural Inputs-Country of Origin**Figure 3.** Agro-chemical Inputs-Country of Origin

## Price

Nine FSL partners collected the price data of agricultural inputs for the selected crops and livestock inputs items across nine districts in four governorates in NES region: Aleppo, Al-Hasakeh, Ar-Raqqa and Deir-ez-Zor governorates. The dataset on the price of agricultural was then validated through discussions with Agricultural Working Group (AWG) members. The outliers' data was excluded to identify the accepted input price range by using the Percentile 10 (P10) as the minimum accepted value and Percentile 90 (P90) as the maximum accepted value. A percentile is a value below which a certain proportion of observations fall. Using the range between P10 and P90 means that we exclude the lower 10 percent of the received data and the highest 10 percent of the received data. The following sections show the price findings of the agricultural inputs at item level using the median price <sup>1</sup>.

## Crops Inputs

This study investigated on different crops inputs that include seeds, fertilizer, pesticide, lands' services, fuel, tools, and wages. Eighty-two items were assessed under the crop inputs as presented in the below paragraphs:

### Seeds

The assessed seeds were grouped into three main groups; winter and cash crops, winter vegetables and summer vegetables. Across the three groups, thirty-seven items were assessed. Ten items under winter and cash crops, eleven items under winter vegetables, and sixteen items under summer vegetables.

The next three sections display the price change of the assessed items during 2019 in comparison with the prices in 2018, utilizing the median price figure.

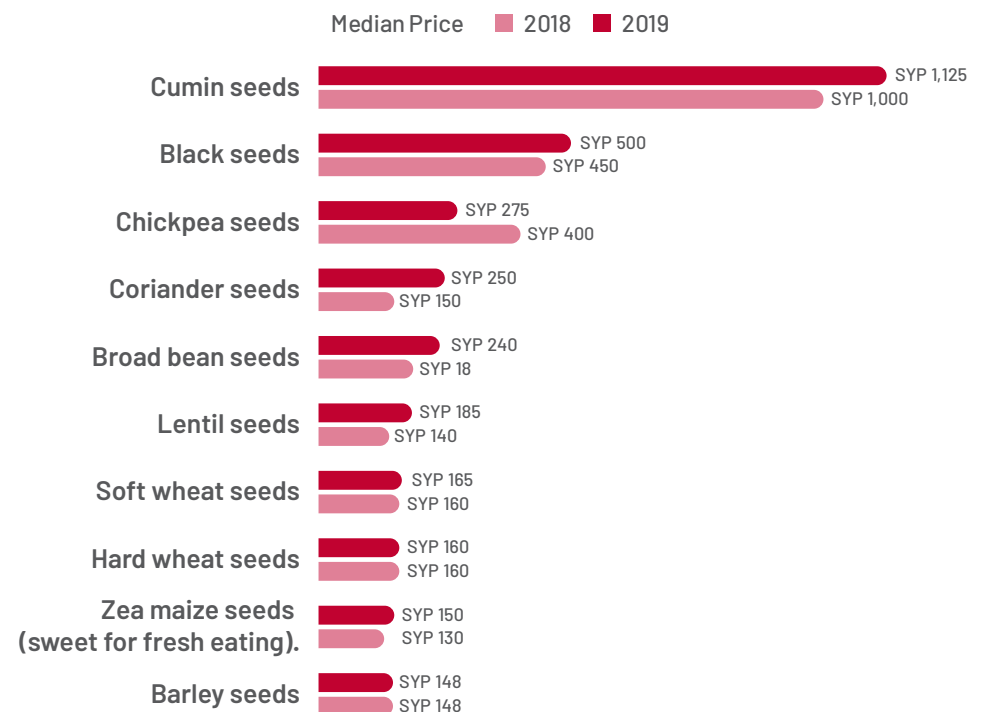
### Winter & Cash Crops Seeds

The median price of winter and cash crops seeds were reported to have increased in 2019 in comparison with prices in 2018. Coriander seeds came with the highest increase percentage (67%), from 150 SYP/kg to 250 SYP/kg. Lentil seeds came next (32%), from 140 SYP/kg to 185 SYP/kg. This was followed by broad bean seeds (28%), from 187 SYP/kg to 240 SYP/kg. However, the median price of chickpea seeds in 2019 decreased as compared to prices in 2018 by (31%), from 400 SYP/kg to 175 SYP/kg.

Although the price of barley seeds showed a stability at NES region level, data recorded different patterns of price change of barley seeds at governorate level. The median price of barley seeds was reported to have dramatically increased in Ar-Raqqa governorate by 23%, from 2018 to 2019. However, it decreased in Al-Hasakeh governorate by 6%.

Similarly, the price of hard wheat seeds remained stable at NES region during the reporting period. Data from Ar-Raqqa governorate recorded a 28% increase in the price of hard wheat seeds during the reporting period in 2019, in comparison with prices in 2018.

**Figure 4.** Price Change of Winter & Cash Crops' Seeds



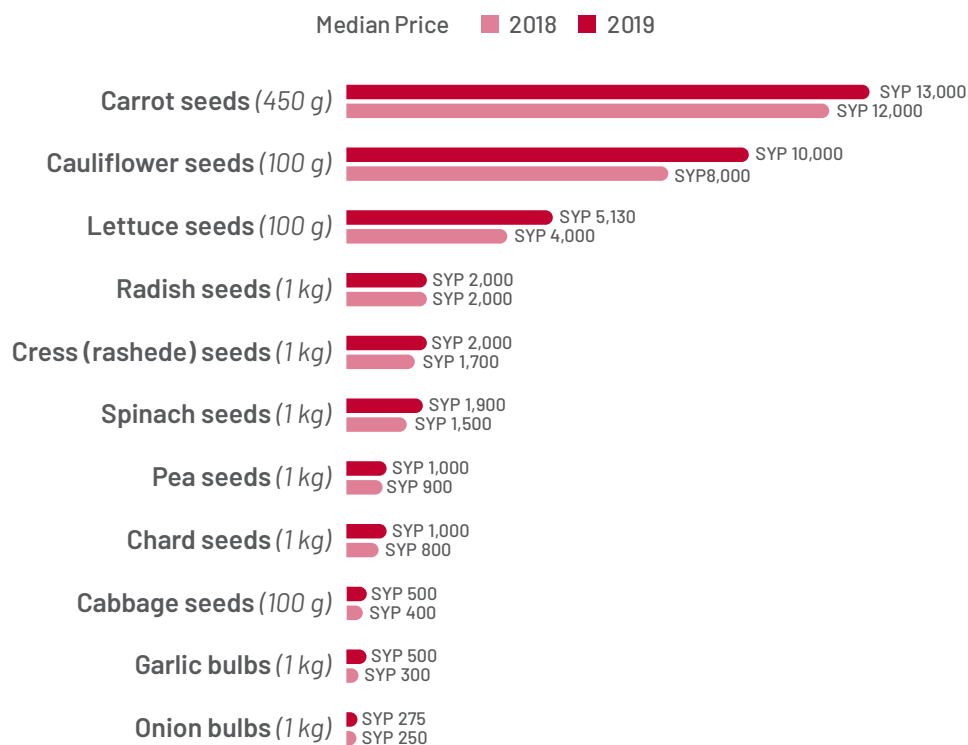
<sup>1</sup> For more information on the price range per item, please visit annex one.

## Winter & Cash Crops Seeds

Ten out of the eleven assessed winter vegetables items reported an increase in their median price in 2019 compared to their median price in 2018. Garlic bulbs came first (67%), with an increase from 300 SYP/kg to 500 SYP/kg, followed by lettuce seeds (28%), with an increase from 4000 SYP/100g to 5130 SYP/100g.

On the other hand, the set price of Radish seeds remained stable in 2019 in comparison to their set price in 2018 in the NES region. However, the price of radish seeds in Ar-Raqqa was reported to have increased by (21%), from 2900SYP/kg to 3500SYP/kg.

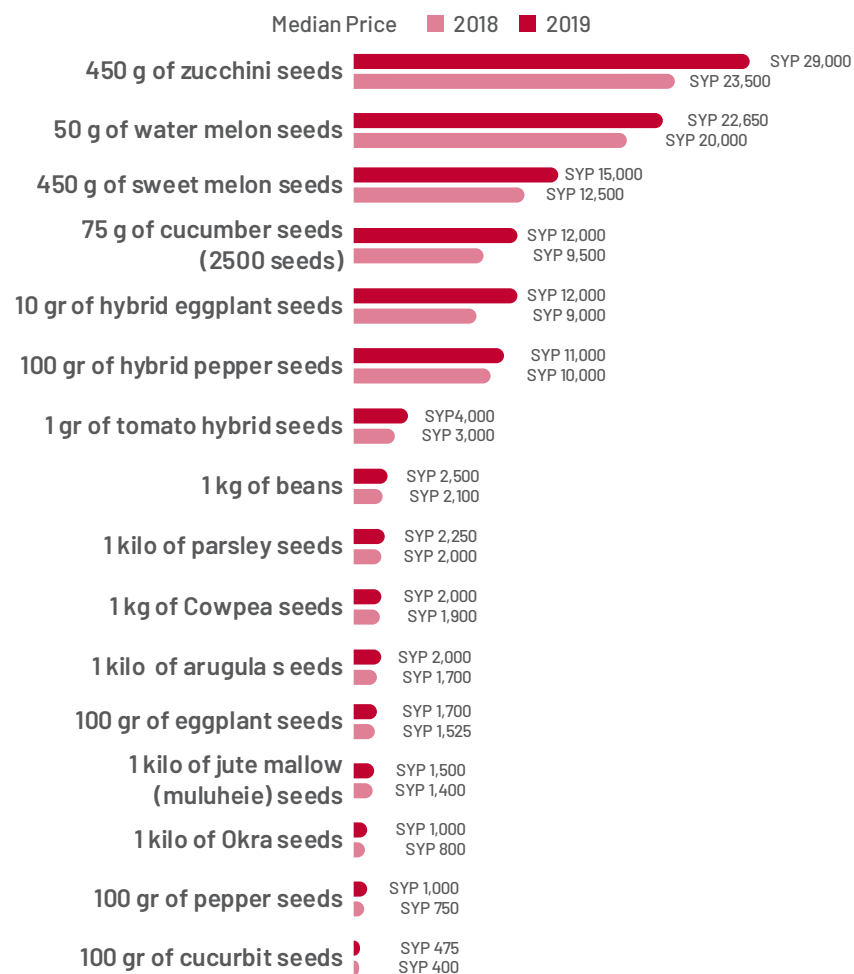
**Figure 5.** Price Change of Winter Vegetables' Seeds



## Summer vegetable Seeds

Participants reported that the price of summer vegetable seeds increased during the reporting period in 2019, in comparison to the price set in 2018. The increasing scale is between five and thirty-three percent at NES region. Seeds of Pepper, Hybrid eggplant, and Hybrid Tomato seeds recorded the highest increase percentage (33%), followed by cucumber seeds (26%), and then Okra seeds (25%). Ar-Raqqa governorate came first with the highest increase percentage (25%), Al Hasakeh governorate came second with (17%), and then Deir-ez-Zor (8%). However, the Aleppo governorate recorded a stability in the median price with zero percent change.

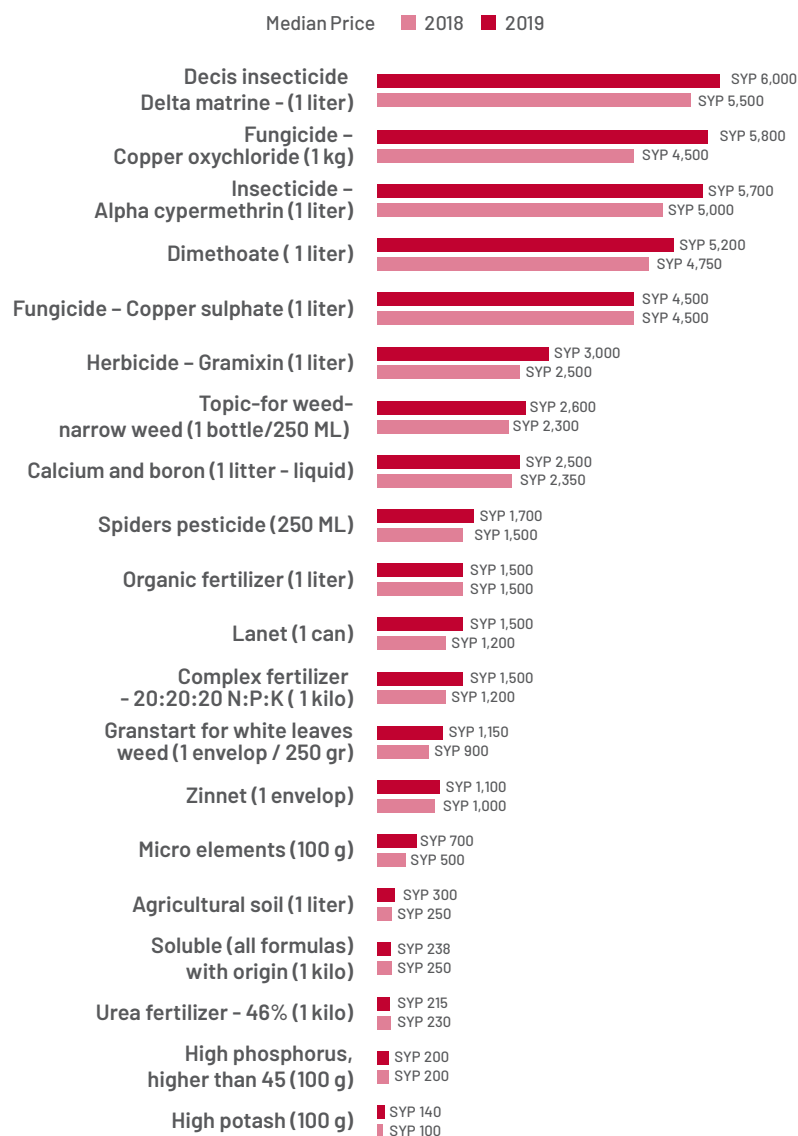
**Figure 6.** Price Change of Summer Vegetable's Seeds



### Fertilizer, Pesticide Herbicide;

Fifteen out of twenty assessed fertilizers, pesticides and herbicides items recorded an increase during the reporting period in 2019, compared to their prices in 2018. The increasing scale is between six to forty percent. High potash and micro elements came first with the highest increase percentage (40%) from 100 SYP/100g of high potash to 140 SYP/100g of potash in conjunction with an increase from 500 SYP/100g of micro elements to 700 SYP/100g of micro elements, followed by a Fungicide-Copper oxychloride (29%) with an increase from 4500 SYP/kg to 5800 SYP/kg.

Three items showed stability in the median price during the reporting period in 2019 as compared to the median prices in 2018 as follows: 1) Fungicide - Copper Sulphates at 4500 SYP/kg, 2) High phosphorus (>45) at 200 SYP/100 g, and 3) Organic fertilizer at 1500 SYP/l.

**Figure 7.** Price Change Fertilizer, Pesticide & Herbicide

## Land Services

Ten out of twelve assessed lands services showed an increase in the median price in 2019 in comparison to its set median price in 2018. The average increase percentage across the ten assessed land services was 35%. The cost of wheat harvesting had the highest reported increase percentage (100%) from 2000 SYP/Donum to 4000 SYP/ Donum. This was followed by the cost of barley harvesting using a harvester (67%), with an increase from 1500 SYP/Donum to 2500 SYP/Donum.

The price of plowing using a disc and sowing using a seeder, services reportedly remained stable in 2019 as compared to the prices in 2018 in the NES region. However, these costs varied at governorate level:

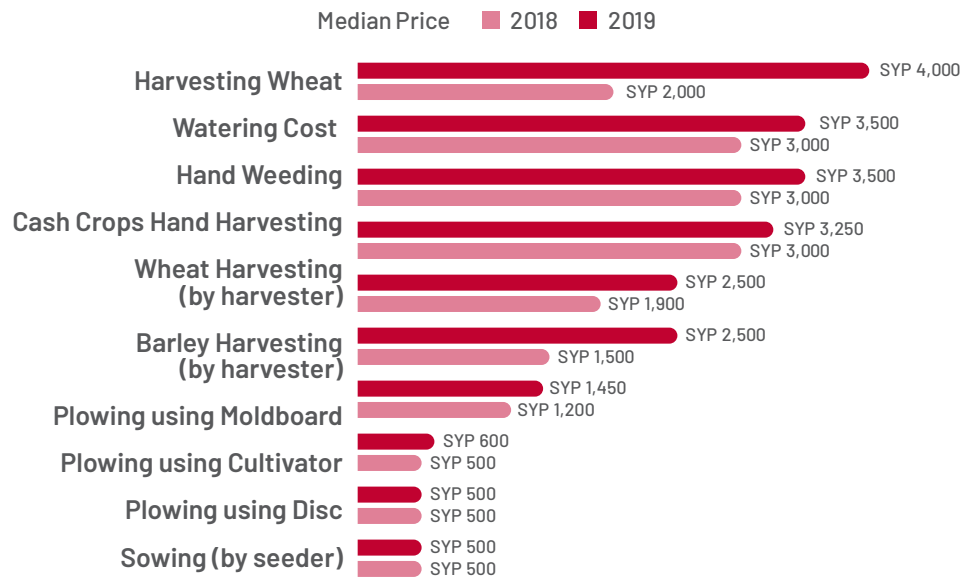
- The cost of plowing using disc increased by (33%) in Deir-ez-Zor, followed by Ar-Raqqa (31%), and thirdly Al-Hasakeh at (11%).
- Al-Hasakeh was reported to have highest increase rate of the cost of sowing using a seeder (25%), followed by Deir-ez-Zor (23%), and finally Ar-Raqqa (3%).

## Fuel

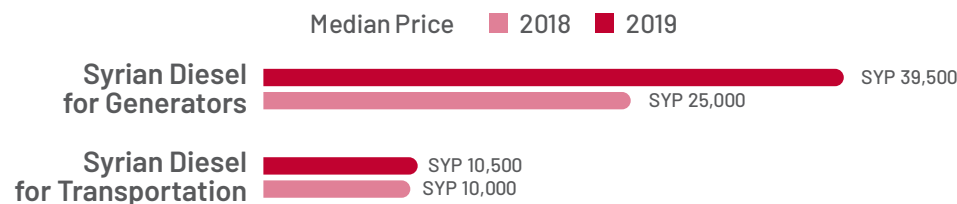
Two types of locally refined-oil products were assessed under this initiative: Diesel for generators and Diesel for transportation. The median price of Diesel for generators was reported to have dramatically increased (58%) during the reporting period in 2019, as compared to the median prices in 2018 in the NES region (see, figure 8). Ar-Raqqa governorate recorded highest increase rate (68%) (from 19,000 SYP/l in 2018 to 32,000 SYP/l in May 2019), however, Ar-Raqqa also had the lowest recorded price of Diesel for generators in 2019 among the three assessed governorates at (32,000 SYP/ 1 barrel). Similarly, Diesel for transportation recorded an increase rate (5%) in the median price at 10,500 SYP/l, during the reporting period in 2019, as compared to the median price of 10,000 SYP/l in 2018 in the NES region. With reference to the prices of Diesel for transportation, Ar-Raqqa governorate recorded the highest increase rate (67%) from 18,000 SYP/l in 2018 to 30,000 SYP/l in May 2019 in Diesel for transportation, while Al-Hasakeh recorded the lowest price in 2019 among the three assessed governorates<sup>2</sup> at (10,500 SYP/ 1 barrel).



**Figure 8.** Price Change of 1 Donum of Lands services



**Figure 9.** Price Change of Fuel

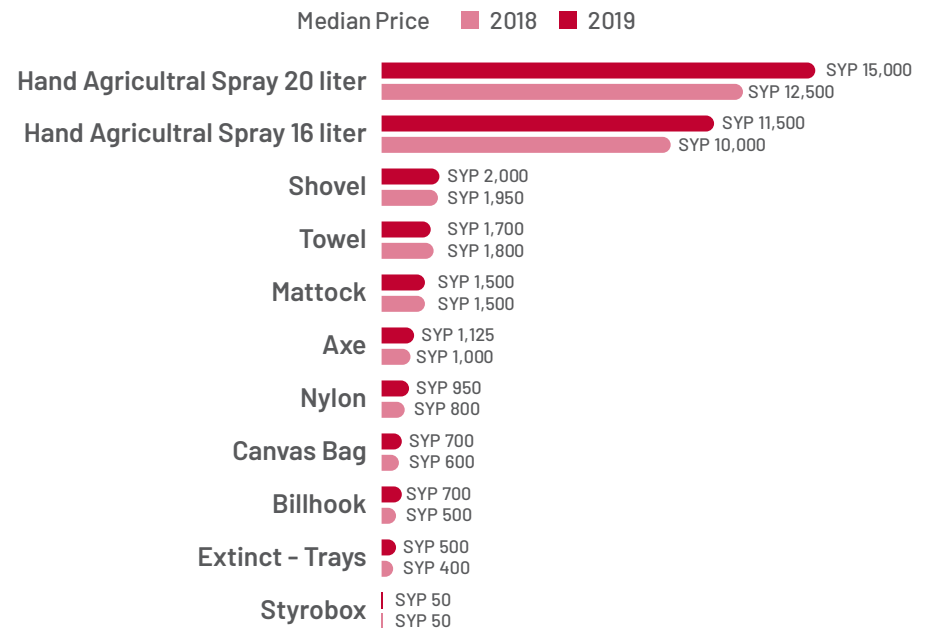


### Agricultural-Inputs Tools

Under agriculture tools; eight out of eleven assessed items showed an increase in their median price in 2019 as compared to their median prices in 2018 (see, figure 9). The increased percentage is between three and forty percent. Billhook recorded the highest increase percentage(40%), followed by Extinct-Trays (25%), and then Hand Agricultural Spray 20 liter (20%).

The price of Styr-box and Mattock remained stable at the NES regional level. At the same time, however, the price of trowel decreased by (6%) during the reporting period in 2019, as compared to prices in 2018.

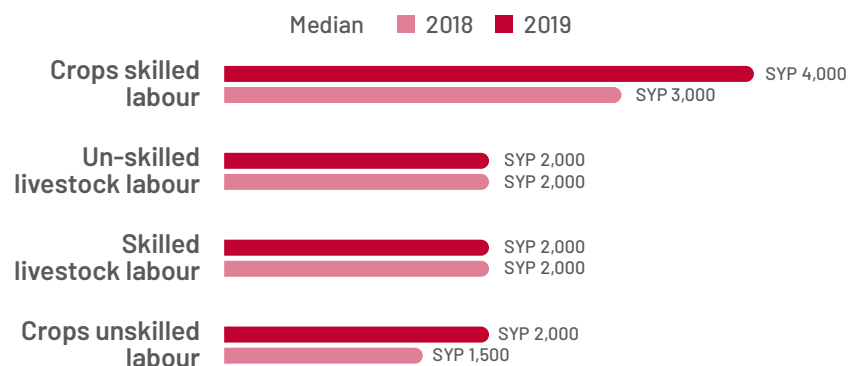
**Figure 10.** Price Change of Agriculture Inputs-Tools



## Wages

The wages for both un-skilled and skilled labor at crops field recorded the same increase percentage (33%), during the reporting period in 2019, as compared to the wages recorded in 2018. The highest rate of skilled labor unit wages was reported at Deir-ez-Zor (20%) from 2500 SYP to 3000 SYP, followed by Al-Hasakeh (14%) from 3500 SYP to 4000 SYP. The highest increase rate of un-skilled labor wages was recorded in both Al-Hasakeh and Deir-ez-Zor governorates (33%) from 1500 to 2000 in Al-Hasakeh, Aleppo came next (11%) from 2250 SYP to 2500 SYP, then Ar-Raqqa (5%). However, the wage rate for livestock labor (both skilled and un-skilled) reportedly remained stable with no changes during the reporting period in 2019, as compared to the wage rate in 2018.

**Figure 11.** Change of Agricultural daily wages rate



## Livestock Inputs

This study assessed the price change of livestock units (cow, sheep, and poultry) and the main livestock feed, including the mixtures for milking/dairy and breeding. In addition, it looked at main animal feed/ fodder mixtures, along with items like barley, wheat barn and fodder corn. Details of notable price changes are explained in the below two paragraphs:

### Livestock herd units

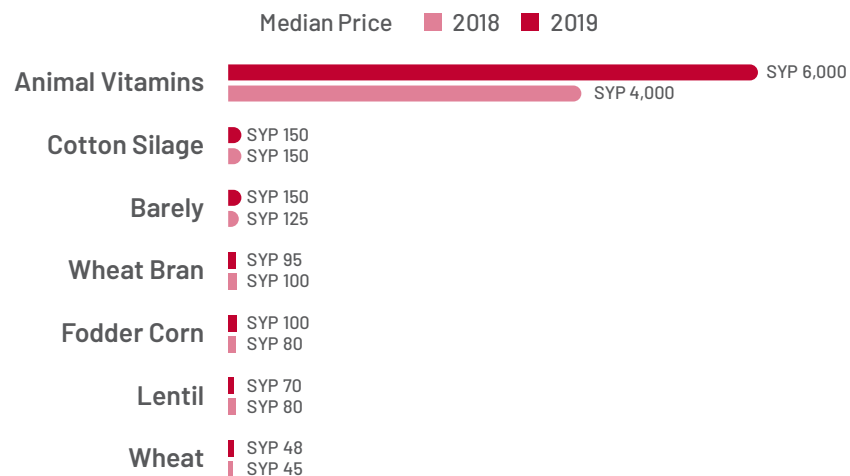
The median price of assessed livestock herd units was reported to have notably increased during the reporting period, in 2019, as compared to prices in 2018. The increasing scale varied depending on the type of livestock herd unit, while the calculated percentage of increase was between fourteen and eighty-eight percent:

- The median price of live poultry, meat purposes, increased by (25%), from 1600 SYP/poultry unit to 2000 SYP/poultry unit. Similarly, the median price of a live unit of poultry, eggs purposes increased by (14%), from 1,750 SYP/ poultry unit to 2,000 SYP/1 poultry unit.
- The median price of live sheep, milking purposes, was reported to have dramatically increased (88%), from 40,000 SYP/live sheep to 75,000 SYP/live sheep. Likewise, median price of live sheep, meat purposes, increased by (75%), from 40,000 SYP/ live sheep to 70,000 SYP/live sheep.
- The median price of live cattle unit, milking purposes increased by (50%), from 500,000 SYP/cattle unit to 750,000 SYP/ live cattle unit. Same was reported with regards to the median price of live unit of cattle, meat purpose, where it increased by (33%), from 300,000 SYP/ live cattle unit to 400,000 SYP/ live cattle unit.

## Animal Feed

The price of animal feed mixtures for cows, sheep, and hens increased in 2019, as compared to prices in 2018. The increase percentage was between four and ten percent. The content of livestock feed mixtures showed a varying pattern of price change: animal vitamins came first with highest increase rate among the animal feed contents (50%), followed by fodder corn (25%), and then barley (20%). Contrarily, lentil and wheat bran recorded a decrease in their prices: Lentil by 13% and wheat bran by 5% (see figure 11)

**Figure 12.** Price Change of Animal Feed



## Limitation, Challenges and Recommendations;

**Item selection approach:** the number of selected items were vast: one-hundred sixteen items to be exact. This needed huge efforts not just at the data collection stage, but also at the analysis and finding visualization stages. It is recommended for further rounds to revisit the selected items and prioritize them, for instance, based on the selected agricultural kits defined as response packages of the Food Security Sector Strategic Objective 2 and 3, see link <sup>3</sup>; Items Diversity: having different varieties for each of the assessed items resulted in a large range of supplied prices. This hurdle was overcome by conducting a follow-up consultation with technical experts from FSL cluster members to ensure the quality of data and contextually of the unearthed findings. For further rounds, especially when it relates to summer vegetables seeds, it is recommended to first identify the variety type to explore with a selection quota of up to three common, distinct brands available in the market.

**Limited Scope:** the scope of this initiative is limited to quantitative data that are used to monitor the price, availability, and country of origin. It is recommended that an addition of qualitative data could be useful in justifying and contextualizing the findings.

## Annexes

Annex 1. Price Range Per Items.

Annex 2. Dashboard [link](#).

## Price Range Per Items.

Group	Item	Minimum Price 2018 (SYP)	Median Price 2018 (SYP)	Maximum Price 2018 (SYP)	Minimum Price 2019 (SYP)	Median Price 2019 (SYP)	Maximum Price 2019 (SYP)
<b>Winter &amp; Cash Crops Seeds</b>	1 kg of barley seeds	110	147.50	250	115	147.50	200
	1 kg of chickpea seeds	235	400.00	650	240	275.00	500
	1 kg of coriander seeds	80	150.00	300	200	250.00	390
	1 kg of Cumin seeds	800	1000.00	1300	1000	1125.00	1200
	1 kg of hard wheat seeds	120	160.00	180	140	160.00	180
	1 kg of lentil seeds	110	140.00	225	120	185.00	200
	1 kg of soft wheat seeds	110	160.00	250	145	165.00	180
	1 kg of Zea maize seeds (sweet for fresh eating).	75	130.00	800	90	150.00	700
	1 kilo of broad bean seeds	140	187.50	300	160	240.00	300
	1kg of Black seeds	125	450.00	1200	355	500.00	1200
<b>Winter vegetable Seeds</b>	1 kg of garlic bulbs	150	300.00	7000	350	500.00	1500
	1 kg of onion bulbs	100	250.00	1500	200	275.00	1500
	1 kg of pea seeds	300	900.00	2500	300	1000.00	2500
	1 kg of chard seeds	500	800.00	1700	800	1000.00	1500
	1 kg of cress (rashed) seeds	1200	1700.00	3000	1300	2000.00	3000
	1 kg of radish seeds	1500	2000.00	3200	1500	2000.00	3700
	1 kg of spinach seeds	1000	1500.00	2000	1200	1900.00	2000
	100 g of cabbage seeds	200	400.00	1200	200	500.00	1200
	100 g of cauliflower seeds	1200	8000.00	85000	1400	10000.00	85000
	100 g of lettuce seeds	2500	4000.00	12000	2500	5130.00	15000
450 g of carrot seeds	7500	12000.00	35000	7500	13000.00	35000	

<b>Summer vegetable Seeds</b>	1 g of tomato hybrid seeds	90	3000.00	80000	100	4000.00	15000
	1 kg of beans	500	2100.00	3500	700	2500.00	3500
	1 kg of Cowpea seeds	1500	1900.00	3000	1500	2000.00	3000
	1 kg of parsley seeds	250	2000.00	3000	1500	2250.00	3500
	1 kg of arugula seeds	1200	1700.00	2500	1250	2000.00	2500
	1 kg of jute mallow (muluheie) seeds	500	1400.00	3000	900	1500.00	3000
	1 kg of okra seeds	100	800.00	1900	300	1000.00	1500
	10 g of hybrid eggplant seeds	3000	9000.00	23000	4000	12000.00	25000
	100 g of cucurbit seeds	300	400.00	1000	350	475.00	1000
	100 g of eggplant seeds	300	1525.00	3000	450	1700.00	3000
	100 g of hybrid pepper seeds	2500	10000.00	85000	4500	11000.00	85000
	100 g of pepper seeds	200	750.00	2000	250	1000.00	2200
	450 g of sweet melon seeds	8000	12500.00	27000	8500	15000.00	27000
	450 g of zucchini seeds	10000	23500.00	36000	11000	29000.00	35000
	50 g of water melon seeds	5000	20000.00	50000	5000	22650.00	50000
	75 g of cucumber seeds (2500 seeds)	4000	9500.00	17000	5000	12000.00	17000

<b>Fertilizer, Pesticide Herbicide</b>	1 bottle(250 ML)of -topic-for weed- narrow weed	1100	2300.00	2800	1500	2600.00	3100
	1 can of lanet	800	1200.00	2000	1100	1500.00	1800
	1 envelope of granstart(50 g) for white leaves weed	700	900.00	1300	900	1150.00	1300
	1 envelope of zinnet	600	1000.00	1200	800	1100.00	1500
	1 kg of fungicide – Copper oxychloride	4000	4500.00	5800	4500	5800.00	6000
	1 kg of fungicide – Copper sulphate	1000	4500.00	6000	1300	4500.00	6500
	1 kg of complex fertilizer (20:20:20 N:P:K)	800	1200.00	2700	925	1500.00	3200
	1l of decis insecticide (delta matrine)	4000	5500.00	7500	4500	6000.00	7500
	1l of dimethoate	3500	4750.00	6000	4500	5200.00	6000
	1l agricultural soil	100	250.00	900	130	300.00	1000
	1l calcium and boron (liquid)	1500	2350.00	3000	2300	2500.00	3500
	1l herbicide – Gramoxine	1500	2500.00	3500	2500	3000.00	4000
	1l insecticide – Alpha cypermethrin	3000	5000.00	7000	4500	5700.00	7000
	1l of organic fertilizer	900	1500.00	2000	1200	1500.00	2000
	1 ton of Soluble (all formulas) with origin	250000	250000.00	1400000	220000	237500.00	1500000
	1 ton of urea fertilizer - 46%	200000	230000.00	2250000	200000	215000.00	250000
	100 g high phosphorus, higher than 45	90	200.00	1000	100	200.00	1000
	100 g high potash	80	100.00	250	100	140.00	250
	100 g micro elements	300	500.00	1000	500	700.00	1000
250 ml spiders pesticide	900	1500.00	2500	1400	1700.00	2500	

<b>Land- Services</b>	1 donum of watering cost	1500	3000.00	6000	1500	3500.00	6000
	1 donum hand weeding	1000	3000.00	5000	1500	3500.00	5500
	1 donum of barley harvesting (by harvester)	800	1500.00	5000	1500	2500.00	4000
	1 donum of cash crops hand harvesting	1000	3000.00	5000	1500	3250.00	6000
	1 donum of wheat harvesting (by harvester)	800	1900.00	7000	1500	2500.00	7000
	1 donum plowing using cultivator	400	500.00	1000	500	600.00	1000
	1 donum plowing using disc	250	500.00	1000	350	500.00	1200
	1 donum sowing (by seeder)	250	500.00	3000	250	500.00	3000
	1 donum harvesting wheat	1000	2000.00	6000	1500	4000.00	6000
	1 donum plowing using moldboard	800	1200.00	2000	800	1450.00	2000
<b>Fuel</b>	1 barrel of Syrian diesel (alternative choice for generators)	8500	25000.00	88000	11000	39500.00	88000
	1 barrel of treated diesel (for transportation)	7000	10000.00	26000	10000	10500.00	32000
<b>Agricultural Tools</b>	axe	500	1000.00	2000	800	1125.00	2000
	billhook	350	500.00	1500	500	700.00	1500
	canvas bag	100	600.00	825	150	700.00	800
	Hand Agricultural Spray 16 liter	7000	10000.00	12000	8000	11500.00	13000
	Hand Agricultural Spray 20 liter	1000	12500.00	18000	9000	15000.00	19000
	Mattock	500	1500.00	2000	1300	1500.00	2000
	nylon	450	800.00	1500	500	950.00	1500
	shovel	1600	1950.00	2200	1800	2000.00	2500
	Styro-box	40	50.00	125	50	50.00	100
	Trays are extinct	200	400.00	500	250	500.00	550
	trowel	1200	1800.00	2000	1500	1700.00	2000

<b>Wages</b>	Daily wages of skilled livestock labor	1000	2000.00	4000	1500	2000.00	4000
	Daily wages of unskilled livestock labor	1500	2000.00	3000	1500	2000.00	3000
	Daily wages of skilled crops labor	1800	3000.00	5000	3000	4000.00	5000
	Daily wages of unskilled crops labor	200	1500.00	3000	1000	2000.00	3000
<b>Livestock herd units</b>	1 live cow – meat purposes	100000	300000.00	500000	300000	400000.00	500000
	1 live cow head –milking	70000	500000.00	750000	650000	750000.00	800000
	1 live hen – eggs purposes	1000	1750.00	2500	1400	2000.00	2500
	1 live hen – meat purposes	1000	1600.00	15000	1500	2000.00	2100
	1 live sheep – meat purposes	30000	40000.00	60000	60000	70000.00	70000
	1 live sheep head –milking	30000	40000.00	65000	70000	75000.00	80000
<b>Livestock_ inputs</b>	1 kg barely	100	125.00	250	100	150.00	170
	1 kg cotton silage	125	150.00	180	125	150.00	160
	1 kg fodder corn	65	80.00	150	85	100.00	150
	1 kg lentil	30	80.00	120	50	70.00	100
	1 kg wheat	25	45.00	150	40	48.00	50
	1 kg wheat bran	70	100.00	160	70	95.00	110
	2 kg of animal vitamins	800	2000.00	10000	1400	3000.00	10000
	50 kg chicken feed (for layers)	300	9000.00	15000	300	9900.00	13500
	50 kg of (cows-sheep) fodder – Mixture for breeding	6000	7000.00	9500	6000	7000.00	9500
	50 kg of (cows-sheep) fodder – Mixture for milk	6000	7000.00	9500	6000	7250.00	10000
	50 kg of broiler	5000	9500.00	13500	5000	10000.00	13500
	Cost of Enterotoxaemia vaccination (per sheep)	40	100.00	500	60	100.00	600
	The fee of Grazing one livestock head in a month	300	6000.00	70000	500	5000.00	55000
	The fee of renting one Grazing donum	500	2500.00	40000	500	2000.00	10000