

Introduction

Price monitoring for agricultural inputs and items plays a crucial role in the integrated market monitoring initiative in Northeast Syria. It serves as a vital indicator, providing key information for Food Security and Livelihood (FSL) activities. By tracking the supply and demand forces that influence market dynamics, monitoring input prices offers timely insights into the functioning and viability of the market, which is essential for effective food assistance and Agro-based livelihood programming. The initiative focuses on collecting qualitative and quantitative data to monitor the price, availability, and affordability of agricultural inputs (such as crops and livestock) across targeted geographical locations on a seasonal basis. This data helps inform decision-making regarding Cash Transfer Values for agricultural inputs and kits distributions, supporting crop and livestock holders in improving agricultural production. The same way the standard food basket and survival minimum expenditure basket (SMEB) values guide cash transfer values for food assistance, monitoring agricultural input prices and trends provides evidence-based guidance for interventions, contributing to enhanced food security and livelihoods in Northeast Syria.

Study Objectives

The initiative aims to assess the availability, country of origin, and prices of agricultural inputs, providing valuable insights into the dynamics of the market. By analyzing the fluctuations in food prices, this monitoring initiative contributes to a comprehensive understanding of how these fluctuations impact the food security of households in Syria. This report specifically focuses on the spring/summer 2023 agriculture production season, providing a timely and relevant assessment of the agricultural market situation in NES.

Methodology

The identification of agriculture inputs for this round (spring/summer season) was carried out by the NES FSL cluster and Agriculture Working Group (AWG). A total of 89 agriculture inputs were identified and categorized into seven different groups: agriculture equipment and fuel, agriculture inputs (fertilizer, pesticides, herbicides), spring/summer vegetables, spring/summer fruits, leafy vegetables, livestock heads, and livestock inputs.

Geographical Coverage

The data collection for the spring/summer season was conducted during May 2023. Seven partners participated in the data collection across 19 sub-districts in four governorates: Aleppo, Al-Hasakeh, Ar-Raqqa, and Deir-ez-Zor as in figure 1. Not all sub-districts in NES were covered mainly because of the limited humanitarian access to all areas due to the security-related issues.

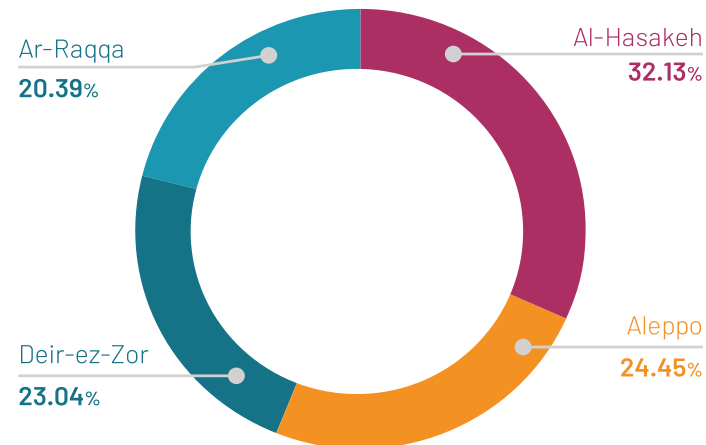


Figure 1: Percentage of Respondents by Governorate

Respondents

Data was collected via in-person key informant (KI) interviews across all NES governorates from 1133 respondents composed of 10 various market actor types (Figure 2) of whom the majority were agricultural pharmacies (28%), followed by crops farmers (26%), then herders (15%), and the rest mainly being composed of farmers of both crops and livestock, traders, breeders, members of the local council agriculture committee, members of the Seed propagation center, and veterinary service experts.

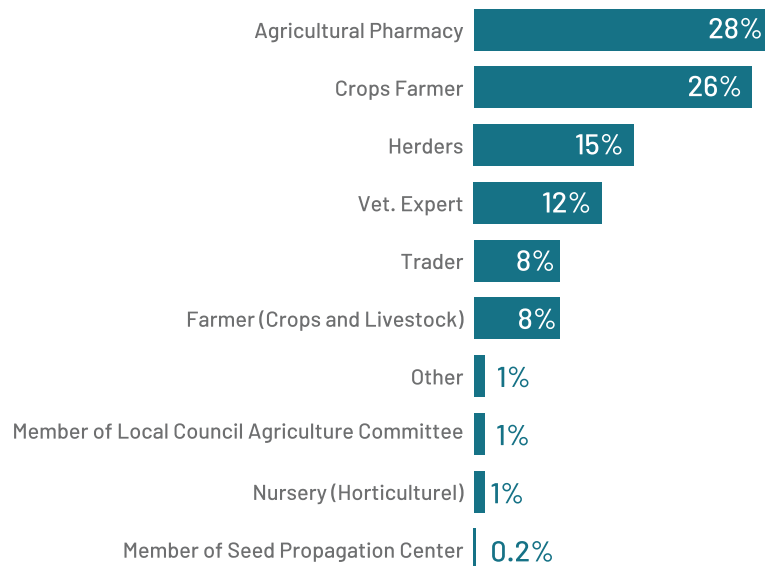


Figure 2: Data Collection Respondents

Interactive Dashboard

This report provides a summary of the key findings and a description of the study methodology. For detailed analysis and visualization of the agricultural inputs' availability, country of origin, and prices of agricultural inputs and food items at different geographical levels (sub-district, district, governorate), refer to the produced interactive dashboard through this [link](#).

Exchange Rates and Currency Used

There has been a notable depreciation in the exchange rates of the SYP against the USD in the last two years. The reported exchange rate of 1 US Dollar (USD) in May 2023 was 8,350 Syrian pound (SYP) whereas it was 3,925 SYP/USD in May 2022.¹ The exchange rate of one dollar increased by 4,405 SYP (112%) in comparison with the same period last year.

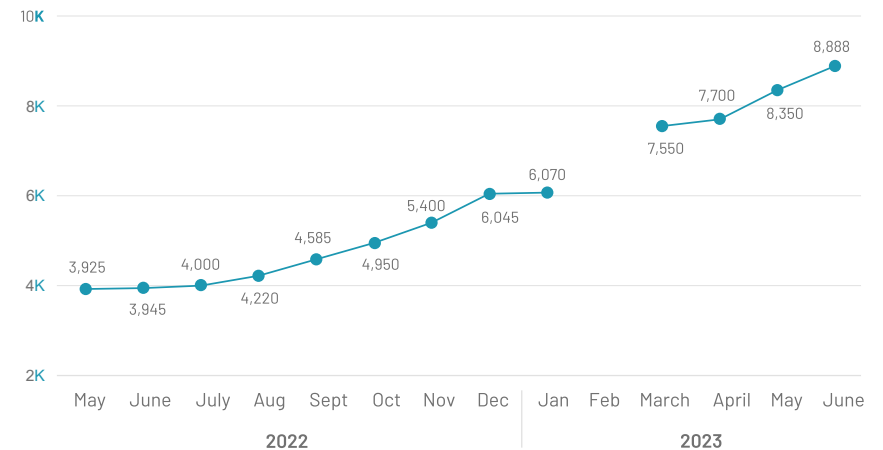


Figure 3: Average SYP Exchange Rate Against USD (May 2022 – June 2023)

The USD is the most used currency for trading agricultural and livestock inputs in all governorates. Half of the respondents indicated that they only used USD (50%) to procure and sell their agricultural and livestock inputs. While other

¹ Joint Market Monitoring Initiative (JMIMI) - Northern Syria

respondents reported using both USD and SYP (37%), or only SYP (13%). At the governorate level, the use of SYP is very little in Ar-Raqqa as shown in Figure 4.

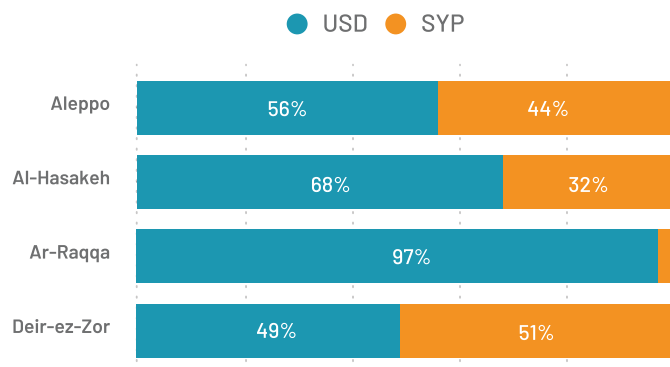


Figure 4: Currency Used in Trading Agriculture Inputs

Key Findings – Agricultural Inputs

Availability

Generally, 92% of respondents (Aleppo governorate, 96%, Ar-Raqqa governorate 93%, Deir-ez-Zor governorate, 88% and Al-Hasakeh governorate, 87%) stated that agricultural inputs are consistently available in the markets of Northeast Syria during the study period; spring/summer season 2023. The availability percentage for spring/summer fruits were noticeably lower than other groups (see Figure 5).

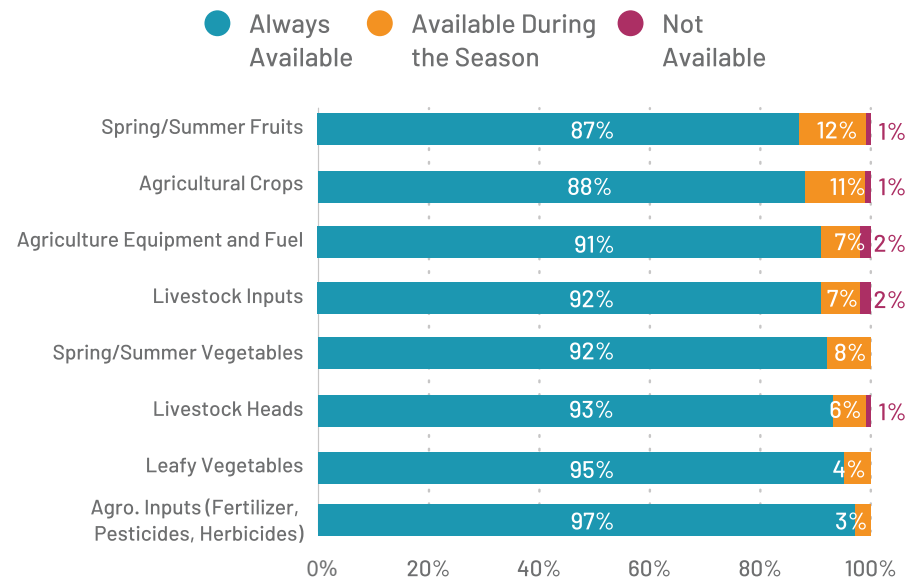



Figure 5: Reported Availability of Agriculture Inputs

The most reported limitations for agricultural inputs’ availability were that the government controls and distributes the inputs mainly in areas under its control, limiting access in other regions. Another issue is the closure of border crossings, which restricts the importation of necessary inputs. Additionally, insufficient allocations for agricultural projects contribute to the scarcity of inputs. Lastly, the high prices and lack of demand also make it challenging to access these resources.

Country of Origin

Across all assessed agricultural inputs in the NES local market, Syria emerged as the primary country of origin, accounting for 57% of the reported inputs. This indicates the significant reliance on domestic sources for crops and livestock inputs within the region. Turkey was identified as the second-largest country of origin, with 18% followed by China with 12%. Below is the main reported country of Origin depending on the type of inputs:

- 82% of the respondents reported that Syria is the main country of origin for the **Agricultural crops** in NES local market.
- Syria, China, and Turkey respectively, were considered the main origin for **Agriculture Equipment and Fuel** available in the local market in NES.
- China ranked the first country of origin for the **Agro. Inputs (fertilizer, pesticide, and herbicide)** in NES local market with  followed by Turkey with 61%.
- 83% of respondents reported that the source of **Leafy Vegetables** is Syria.
- 81% of **Livestock Heads** were reported to be originating from Syria. A lower percentage of 8% was reported to be originating from Turkey.
- 29% of respondents reported that Syria is considered as the main origin of **Livestock Inputs**, this was followed by Turkey with 27%. Then Russia comes in third rank with 14%.
- 50% respondents reported that the source of **Spring/Summer Fruits** is Turkey, while 23% reported Syria as the country of origin for the Spring/Summer Fruits.
- Syria came as the first country of origin for the **Spring/Summer Vegetables** in NES local market with 46%, this followed by Turkey with 25%.

Source of Access

Most respondents reported that retailers and wholesalers (98%) were the main sources of access to agricultural inputs. These traders included farmers, herders, market owners, vets, and agricultural pharmacies. On the other hand, the Local Self Administration of Northeast Syria (LSA)(2%) was also identified as other sources of access to obtain agricultural inputs.

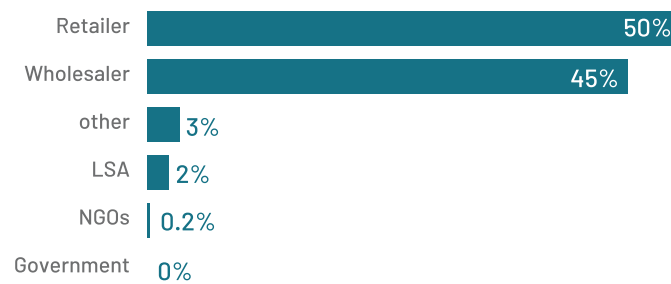


Figure 6: Sources for Accessing

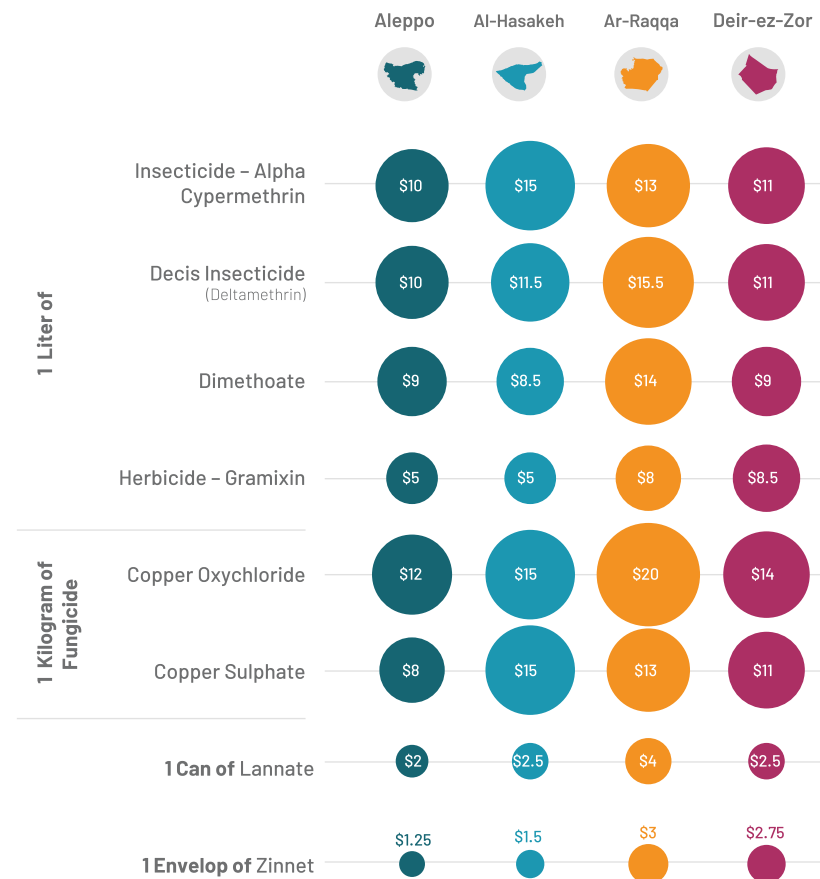
Key Findings – Agricultural Inputs Prices

Agriculture Inputs (Fertilizer, Pesticides, Herbicides)

Fourteen chemical products were assessed under the Fertilizers, Pesticides and Herbicides group during the second quarter of 2023 across the local markets in NES. Collected data recorded the high price of both the soluble fertilizer and the complex fertilizer NPK (10:10:10,15:15:15,20:20:20). The median price for 1 Ton of soluble fertilizer was 2,938 USD (4,000 USD in Ar-Raqqa governorate, 3,000 USD in Al-Hasakeh governorates, 2,500 USD in Deir-ez-Zor governorate and 2,250 USD in Aleppo governorate), whereas the median price of 1 Ton of complex fertilizer was 2,580 USD (4,000 USD in Ar-Raqqa governorate, 3,000 USD in Al-Hasakeh governorates, 2,200 USD in Aleppo governorate and 1,700 USD in Deir-ez-Zor governorate).

The collected data recorded that 1 Ton of organic fertilizer from chicken was more expensive in comparison to the organic fertilizer from sheep and cow.

The median price of 1 Ton of organic fertilizer from chicken was 250 USD in Al-Hasakeh governorate, 200 USD in Deir-ez-Zor, 150 USD in Aleppo governorate and 8 in Ar-Raqqa governorate, Whereas the average price of 1 Ton of organic fertilizer from Sheep and cow was 220 USD in Ar-Raqqa governorate, 150 USD in Al-Hasakeh governorate, 65 USD in Aleppo governorate and 50 USD in Deir-ez-Zor governorate.



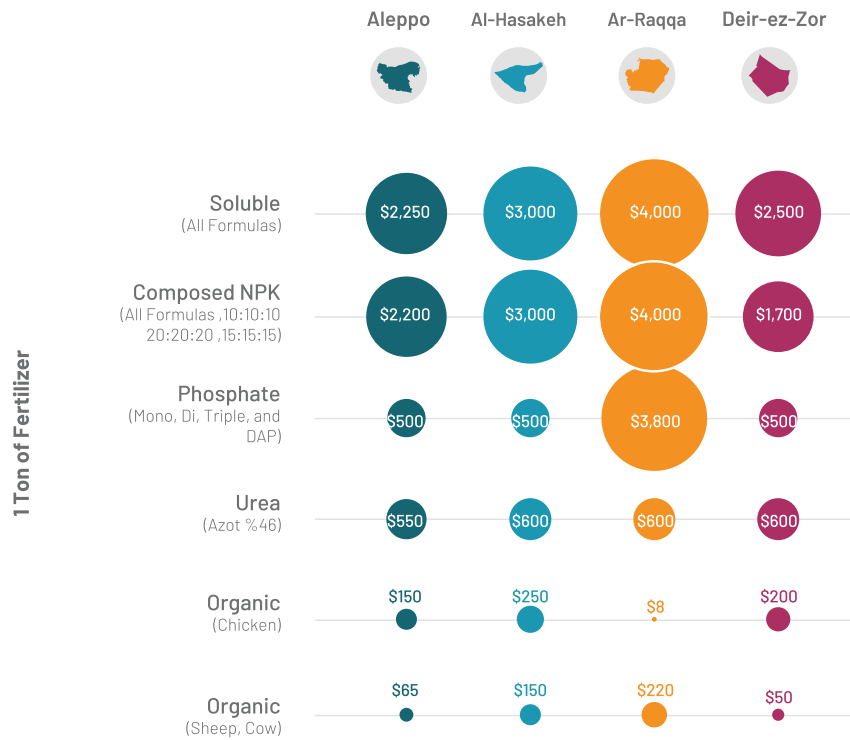


Figure 7: Median Prices in USD of Agriculture Inputs – Q2 2023

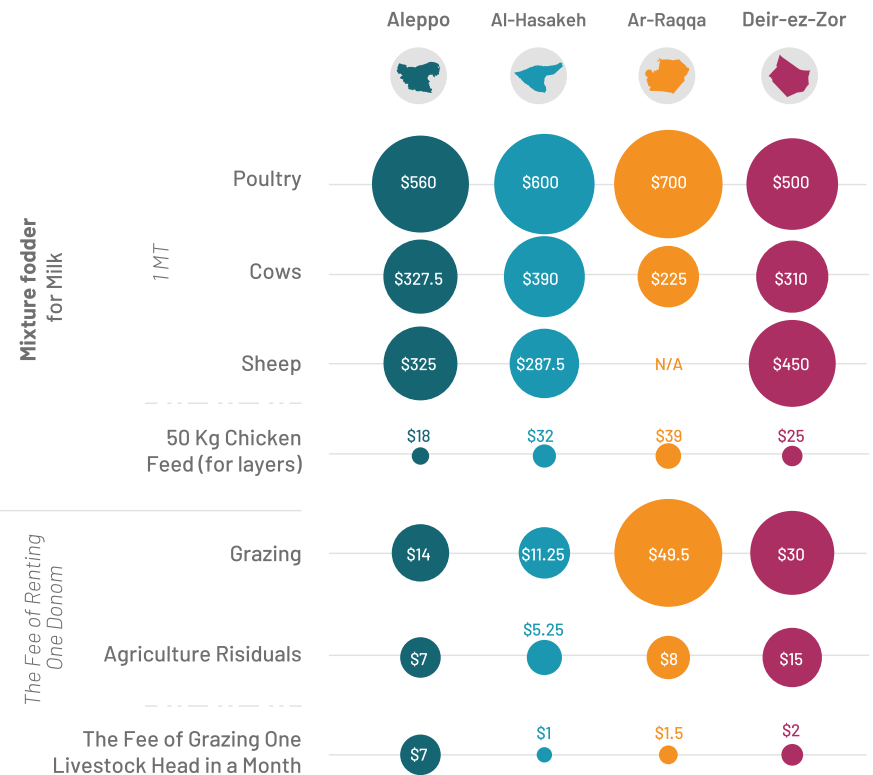
Livestock Inputs

This category covers various types of livestock inputs and services related to animal production, such as livestock feed and fodder, vaccination, and wages. Twenty-four inputs were assessed during the second quarter of 2023 across the local markets in NES; these were grouped into three main categories: Mixture feed, individual feed items, and animal vaccine & vitamins.

For the mixture feed category, the median reported price of 1 MT of poultry mixture feed for meat and eggs was the highest in comparison to that of cows and sheep mixture feed (590 USD/MT of poultry mixture's feed), followed by sheep

mixture feed (354 USD/MT of sheep mixture's feed), and cows mixture feed being the cheapest at (313 USD/MT of mixture's feed).

When it comes to individual fodder items, wheat fodder recorded the cheapest average price of the assessed individual fodder items in NES (166 USD/MT white wheat fodder). In addition, the average reported price of 1 kg of animal vitamins was 5 USD at the NES level.



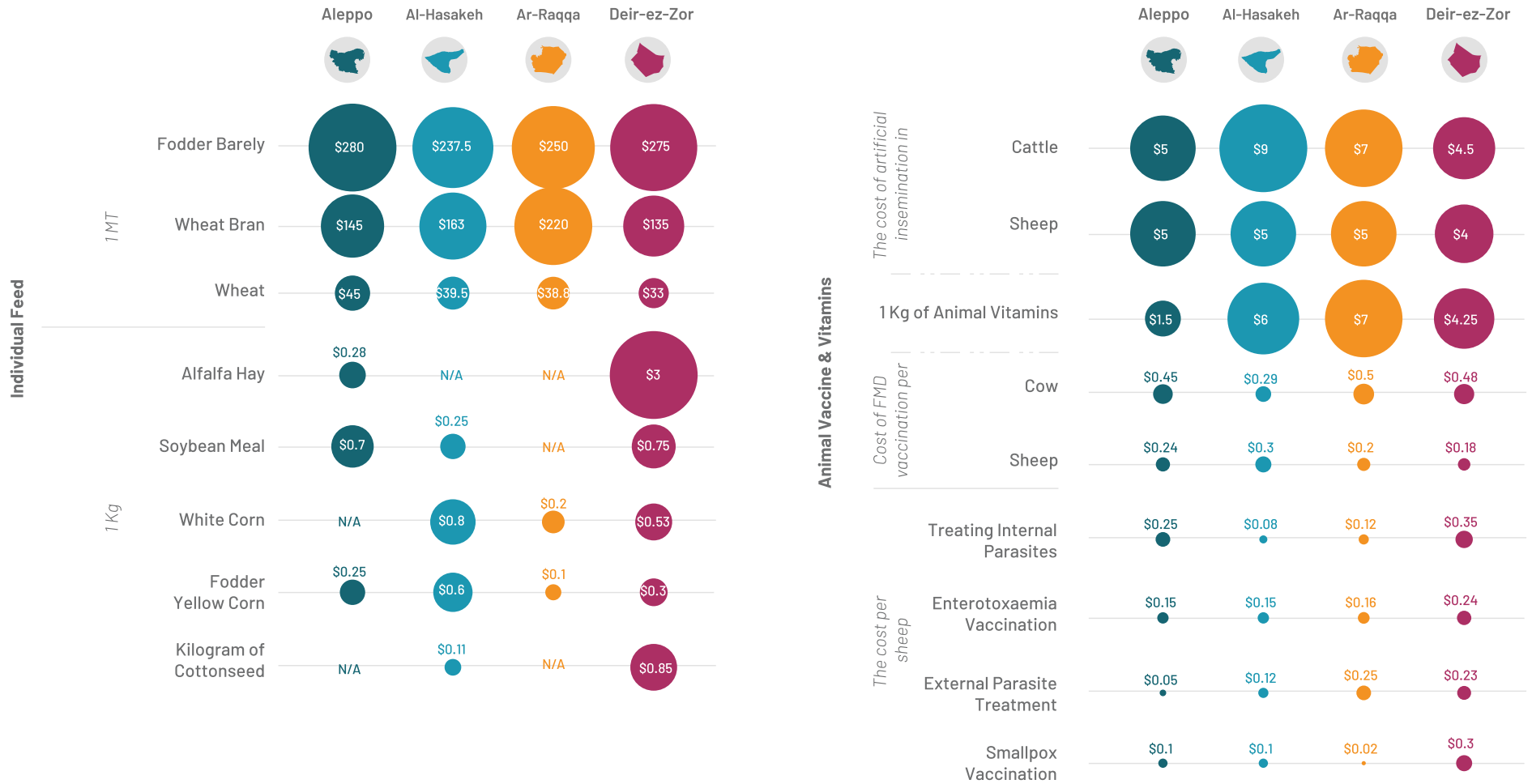


Figure 8: Median Prices in USD of Livestock Inputs – Q2 2023

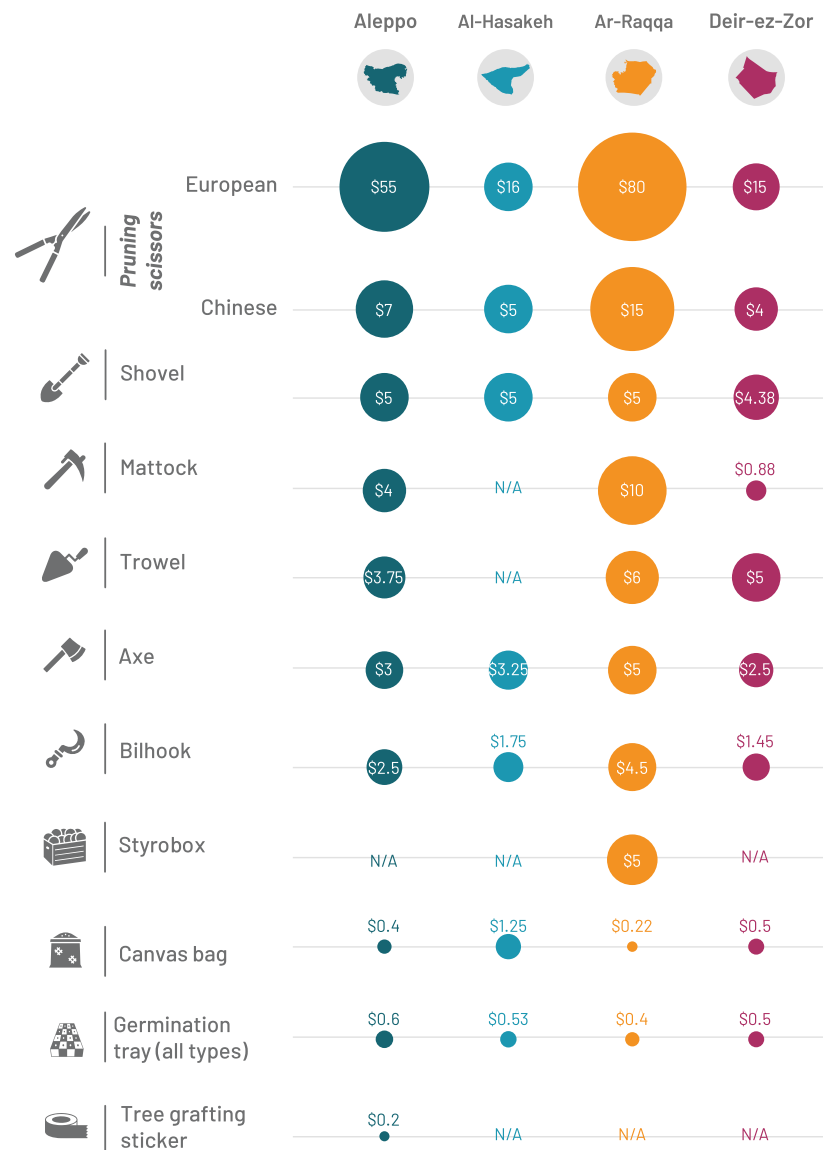
Agriculture Equipment and Fuel

Figure 9 summarizes the reported prices in each governorate for the equipment used in agriculture practices. The average overall price of European diesel reached \$0.31/liter, and the reported prices ranged between 0.23 USD –0.6 USD per liter (at the time of data collection, May 2023).

The current prices of Local Diesel (1st and 2nd grade) are an important factor to consider for those who rely on diesel fuel for their agricultural equipment and machinery. As of the time of data collection, the current median price for the 1st grade is 0.2 USD per liter which is slightly higher than the price of Local Diesel 2nd grade at 0.14 USD per liter. Aleppo governorate recorded the highest median diesel price, followed by Deir-ez-Zor, Ar-Raqqa, and Al-Hasakeh governorates, respectively.

In Aleppo, Ar-Raqqa, and Deir-ez-Zor governorates, the average expense for wheat harvesting was 5 USD per donum. Al-Hasakeh, had an average cost of 4 USD per donum. On the other hand, the overall median of daily worker wages when harvesting vegetables was 3 USD per day, whereas in Deir-ez-Zor and Ar-Raqqa governorates reported the highest median price, followed by Aleppo and Al-Hasakeh governorates, respectively.

Al-Hasakeh governorate recorded the highest median hand agricultural spray 20-liter price, followed by Ar-Raqqa then Aleppo and Deir-ez-Zor governorates, respectively.



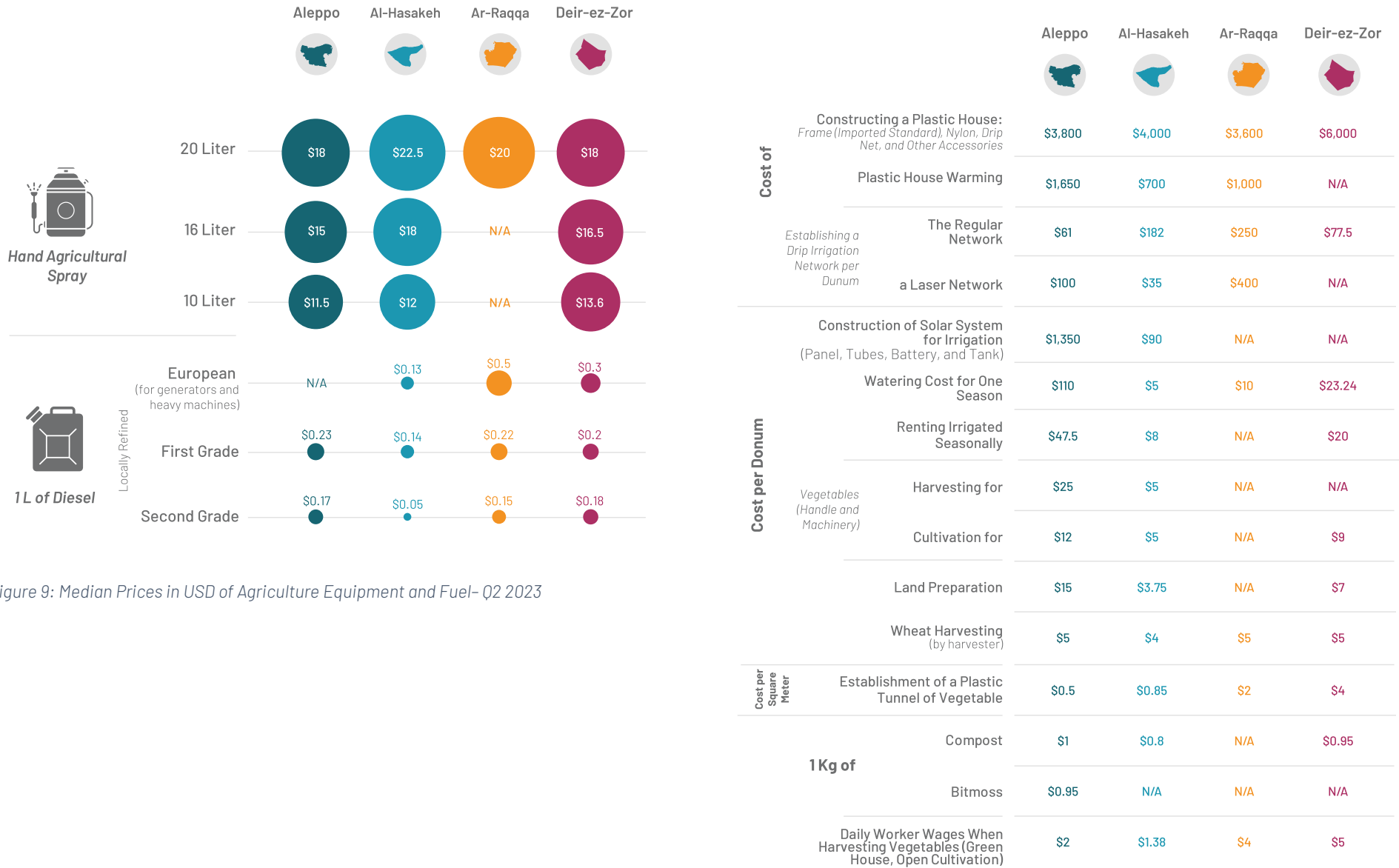


Figure 9: Median Prices in USD of Agriculture Equipment and Fuel- Q2 2023

Livestock Heads

This category covers live animal prices, the prices range depending on the animal production purpose whether for meat or milk, where naturally live cow animals are considered the most expensive and particularly for milking purposes.

In this category, one live cow for milking purposes recorded the highest average price of 2,000 USD in Ar-Raqqa governorate. On the other hand, one live baladi pullet for meat purposes recorded the lowest average price of 0.40 USD in Aleppo governorate.

In Aleppo, Ar-Raqqa, and Deir-ez-Zor governorates, the average expense for wheat harvesting was 5 USD per donum. Al-Hasakeh, had an average cost of 4 USD per donum. On the other hand, the overall median of daily worker wages when harvesting vegetables was 3 USD per day, whereas in Deir-ez-Zor and Ar-Raqqa governorates reported the highest median price, followed by Aleppo and Al-Hasakeh governorates, respectively.

When it comes to meat for consuming, one kilogram of sheep meat recorded the highest average price in NES (6.16 USD/KG). In addition, the average price for one live sheep head for milking purposes was 190 USD in Ar-Raqqa governorates.

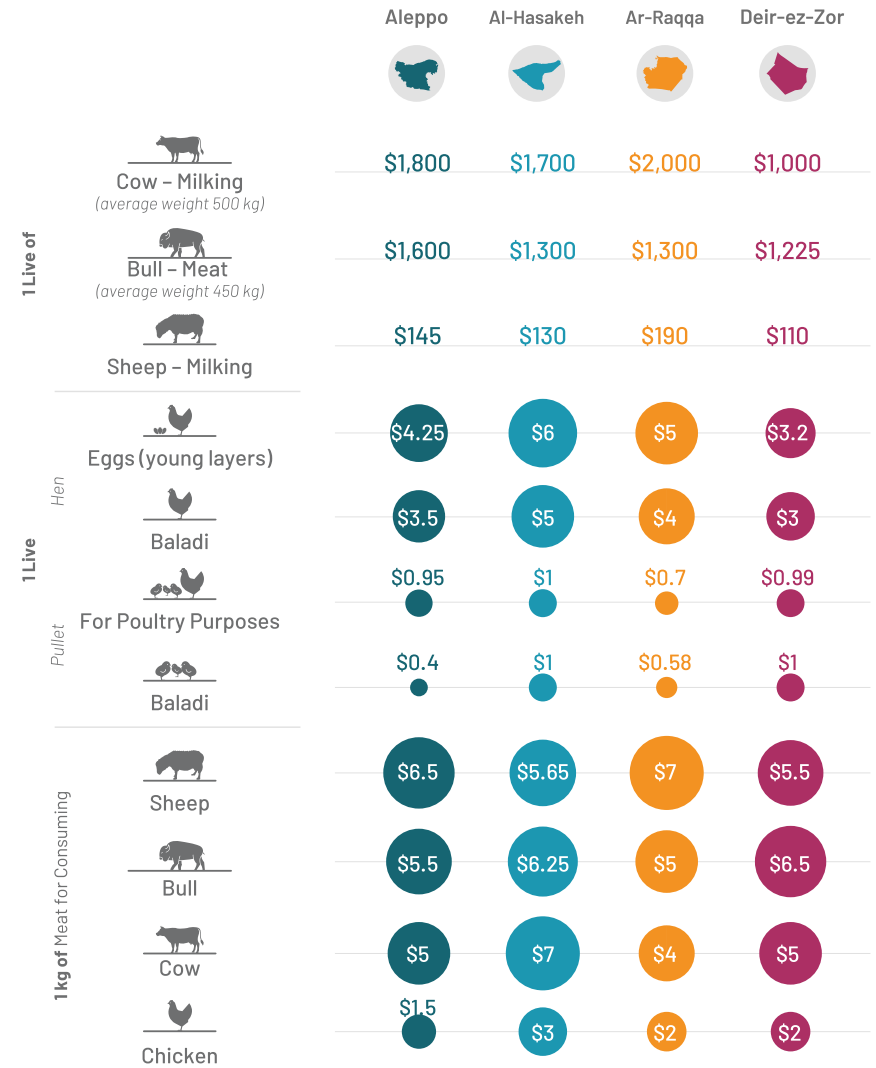


Figure 10: Median Prices in USD of Livestock Heads - Q2 2023

Leafy Vegetables

Four different types of seeds were assessed in the leafy vegetables category during the second quarter of 2023 across the local markets of NES. In this category, arugula seed recorded the highest average price of 1 USD/100g in Deir-ez-Zor governorate. On the other hand, jute mallow (mulukheie) recorded the lowest average price of 0.33 USD/100g in Al-Hasakeh governorate.

It worth noting that for the four assessed vegetable seed types under the leafy vegetables category in NES, Deir-ez-Zor governorate recorded the highest average price of four seed types.

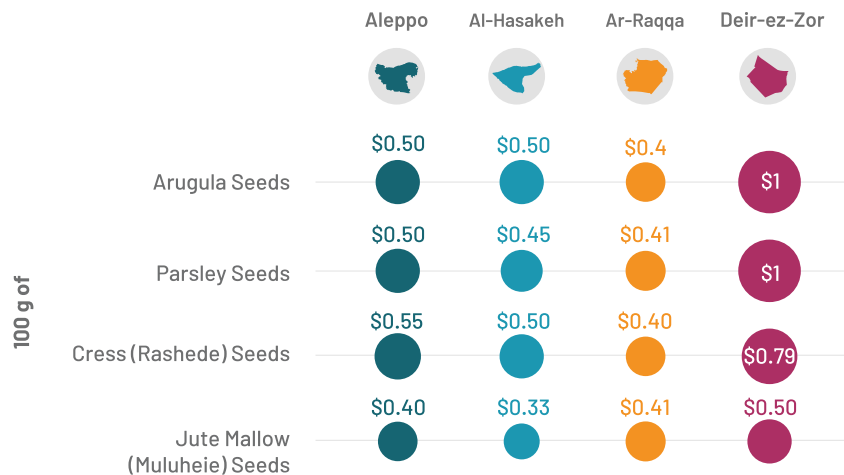


Figure 11: Median Prices in USD of Leafy Vegetables - Q2 2023

Spring/Summer Fruits

As per the study findings, strawberry, watermelon, and melon seeds, respectively, recorded the highest median prices of the assessed fruits seed types under the spring/summer fruits group in NES.

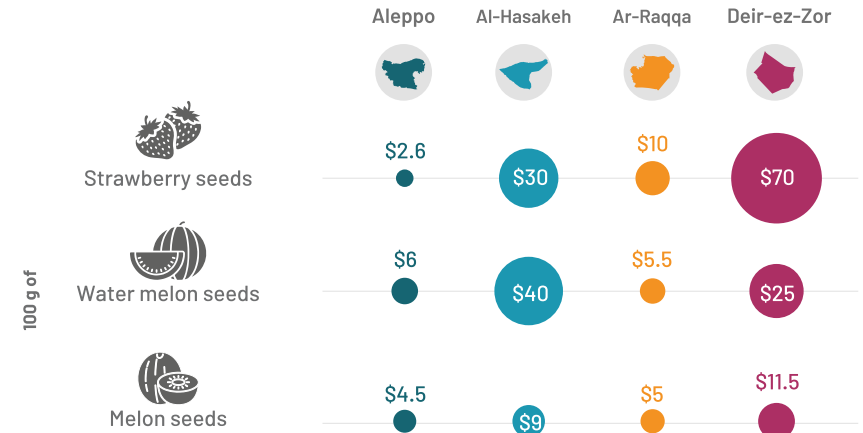


Figure 12: Median Prices in USD of Spring/Summer Fruits - Q2 2023

Spring/Summer Vegetables

A wide range of vegetables are planted during spring/ summer seasons. Fourteen different types of vegetables seeds were assessed during the second quarter of 2023 across the local markets of NES.

In the NES region, there are two categories of seeds available for certain crops: locally produced open-pollinated seeds and hybrid seeds. Hybrid seeds typically come from outside Syria or the region, resulting in relatively higher prices compared to locally produced seeds.

As figure 12 shows, the average price of vegetables seeds varied across different seed types across the governorates. Hybrid eggplants seed, hybrid tomato seeds, and hybrid bell pepper seeds, respectively, recorded the highest median prices of the assessed seed types under the vegetables category. Annual radish seeds, cowpea seeds, and cucurbit seeds, respectively, recorded the lowest median prices of the assessed seed types under the vegetables category across NES.

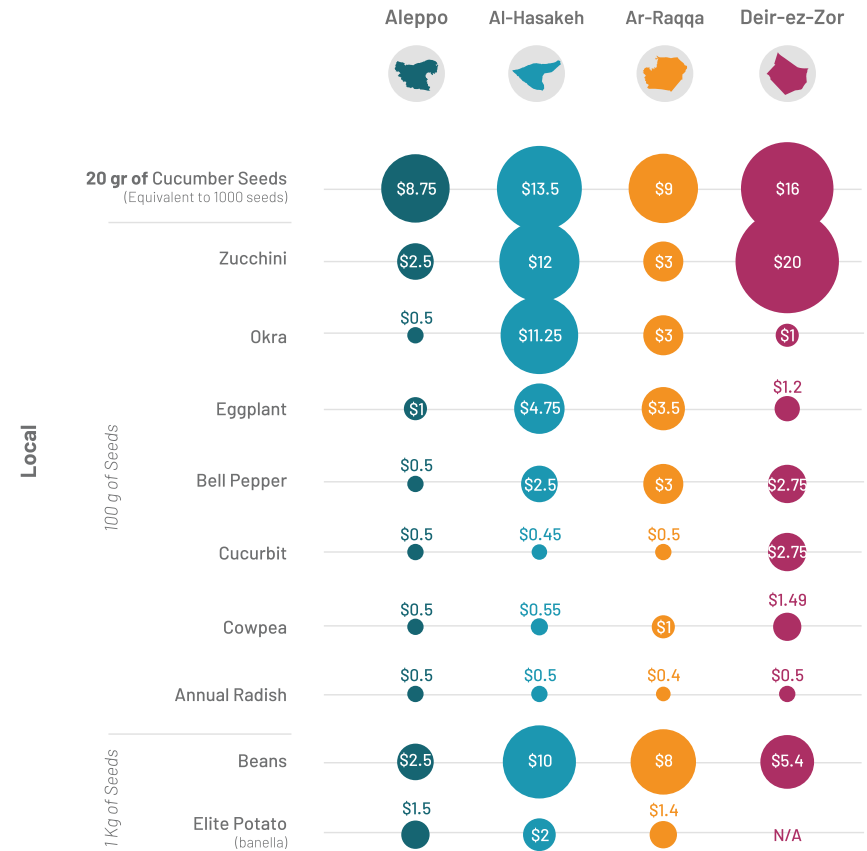
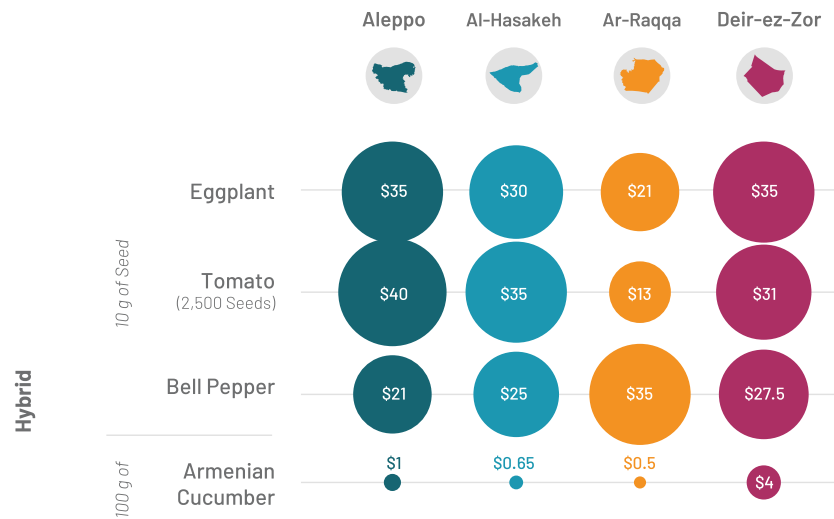


Figure 13: Median Prices in USD of Spring/Summer Vegetables - Q2 2023

Agricultural Crops

Twelve types of seeds were assessed under the agricultural crops group during the second quarter of 2023 across the local markets in NES. The median price of the cash crops seeds varied across different seed types as assessed across the governorates. Broad bean seeds, cumin seed, and yellow corn seeds, respectively, recorded the highest median prices of the assessed seed types under agricultural crops categories across NES.

Local broad bean seeds, hard wheat seeds and soft wheat seeds, respectively, recorded the lowest average prices of the assessed seed types under agricultural crops categories across NES.

Out of the 12 agricultural crops seed types, Ar-Raqqa governorate recorded the highest median price for 7 items in NES, this was followed by Aleppo governorates where it recorded the highest average price for 3 items.

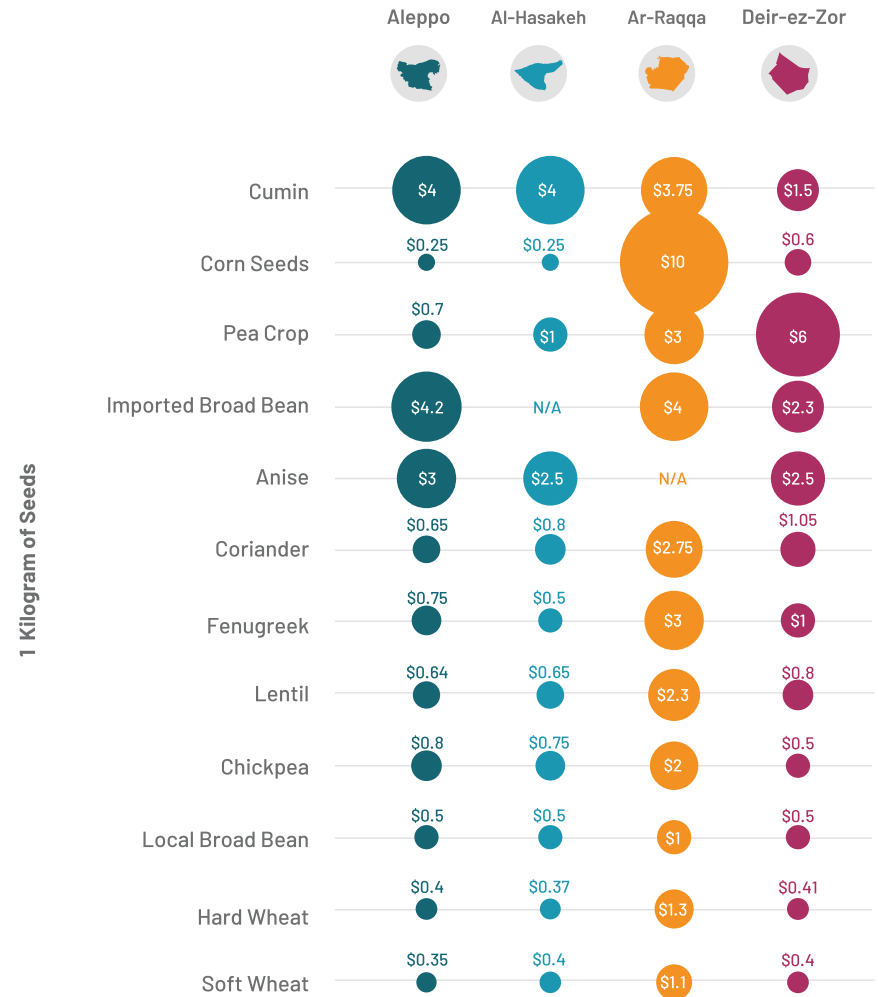


Figure 14: Median Prices in USD of Agricultural Crops- Q2 2023

Recommendations

Agriculture in NES is the primary source of income and employment. The agricultural sector is predominantly composed of small-scale farmers, with the majority operating farms that are less than five hectares in size. However, these farmers constantly face significant challenges stemming from political and security instabilities and climate change hindering their efforts to maintain agricultural activities and ensure productivity.

One major obstacle faced by farmers in the northeast is the availability and affordability of agricultural inputs. Due to disruptions in supply chains and the high inflation rates of the local currency most agricultural inputs are imported from government-controlled areas or neighboring Turkey. Unfortunately, these imports often come at elevated prices, adding financial strain to farmers already grappling with various challenges. The increased costs of inputs make it even more difficult for farmers to sustain their agricultural operations and limit their ability to invest in advanced technologies and practices that could enhance productivity and resilience.

Addressing these challenges requires focused efforts to improve access to affordable and quality agricultural inputs in NES. Humanitarian actors can play a critical role in addressing the challenges faced by the agricultural sector in Northwest Syria, the following are some recommendations:

- It is highly recommended to provide comprehensive support to farmers by covering the costs of essential inputs such as high-quality seeds, fertilizers, irrigation systems, and harvesting expenses. By alleviating the financial burden on farmers, they can enhance their productivity and yield, leading to increased agricultural output and contributing to the overall growth and development of the agricultural sector.
- Encourage and facilitate the provision of service extension by both international and local non-governmental organizations. These organizations can complement existing initiatives by delivering targeted training programs, technical assistance, and capacity building to farmers. By equipping farmers with the necessary skills and knowledge in modern agricultural practices, they can enhance their productivity,

adopt sustainable farming techniques, and effectively respond to challenges such as climate change and market demands.

- Support and strengthen holistic value chain interventions. This can be achieved by creating market linkages, improving storage and transportation infrastructure, and promoting efficient marketing and distribution networks. By focusing on the entire value chain, from production to processing and marketing, the agricultural sector can achieve increased efficiency, profitability, and resilience.
- Provide access to low-interest loans and financial services. This can help farmers manage and mitigate financial risks due to inflation and agricultural input prices increase.
- Promoting the establishment or rehabilitation of hybridization centers and investing in seed improvement initiatives are crucial endeavors that hold immense potential to revolutionize the agricultural sector. Hybridization centers would serve as specialized facilities aimed at the development and production of superior-quality hybrid seeds. These seeds offer a range of enhanced traits, such as increased yield potential, improved resistance against diseases, and adaptability to specific environmental conditions. By focusing on these initiatives, the agricultural sector can benefit from the availability of advanced seed varieties, fostering greater productivity, resilience, and sustainability in crop production.