Agriculture Report – Torah VeHa’aretz Institute
5785 - 2025

Torah VeHa'aretz Institute
The Institute for Torah and the Land of Israel

This is the second report published by Torah VeHa'aretz Institute. As in last year's edition, the purpose of this report is to present the public with key trends in Israeli agriculture. This past year, Israeli agriculture has contended with formidable challenges stemming from the war and ongoing financial hardship. Yet these very difficulties have highlighted the resilience of Israeli agriculture and its vital contribution to the State of Israel: in the realms of food security, maintaining a Jewish presence on the land, settling Israel's border regions and areas throughout the country, and uplifting national morale.

Alongside many notable achievements, the agricultural sector continues to face significant and, in many cases, long-standing difficulties. Chief among them are high labor costs and a persistent shortage of available workers. In light of these realities, this report aims to offer a broad overview of the sector while also identifying specific crops that exhibited meaningful trends—positive or negative—over the past year. The data are based primarily on information from the Ministry of Agriculture and the Central Bureau of Statistics (CBS), with all caveats regarding the accuracy, as stated by these entities in their reports. Since CBS data is available only up to the previous year, the report refers primarily to the years 2021–2023, with references to trends over the past decades.

Despite the many challenges, agriculture has been a driving force in the development of the State of Israel and in the settling of its land since the country's establishment. While farmers make up a relatively small percentage of the Israeli population, the impact and significance of agriculture for the nation as a whole are immense. In the Torah, as well as in Talmudic literature, agriculture is portrayed as a central pillar of national life in the Land of Israel, deeply tied to *mitzvot* and the broader process of redemption. With G-d's help, we believe that greater awareness of agriculture's national importance will enable efforts to develop the sector economically—in alignment with the unique conditions of the Land of Israel—while balancing this growth with other essential values, such as ensuring affordable prices for fresh produce.

Report Highlights: Trend Overview

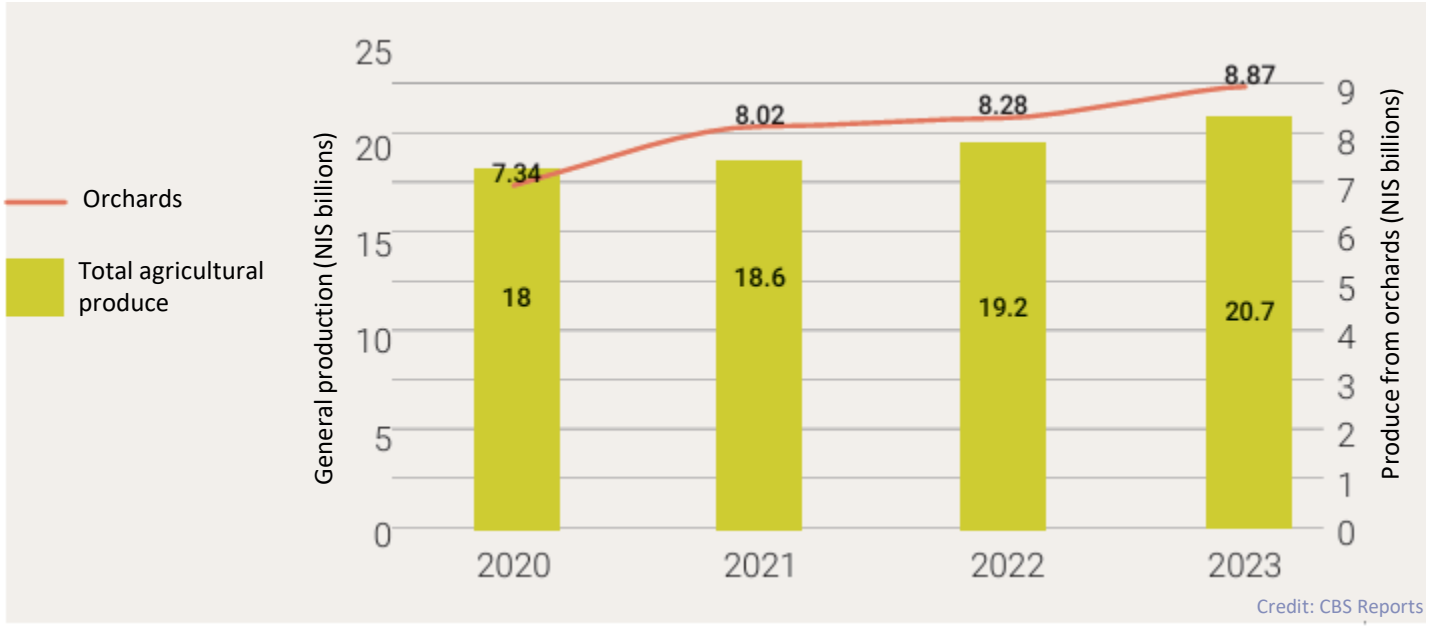
- The current report relates to 2023 and a small portion of 2024, and therefore it is partially influenced by the war raging during these years.
- Economic output – The output for 2023 amounted to NIS 20.7K (moderate increase from previous years).
- Agricultural areas in Israel – 2,838K dunams (≈ 700K acres; no significant change). There is an increase in avocado orchards, a decrease in other orchards, and relative stability for vegetable fields.
- Agriculture in periphery regions – stable in cultivated areas, with a certain increase in the Gaza Envelope (before the war).
- Agricultural production – approx. 4,740,000 tons (a moderate decrease from the previous year, a decrease in the fruit branch).
- Imports of fruits and vegetables – slight decrease from imports in 2022, which was a *shemitah* year, but nevertheless this figure was higher than all the other preceding years: 10.6% of personal consumption.
- Food supply balance – more than 80% of vegetables is local produce, compared to 20% of legume products.
- Exports – slight decrease, specifically in vegetable exports.

1

Scope of Territory and Production

Israeli Agriculture – Economic Power

Production in NIS billions, showing an upward trend

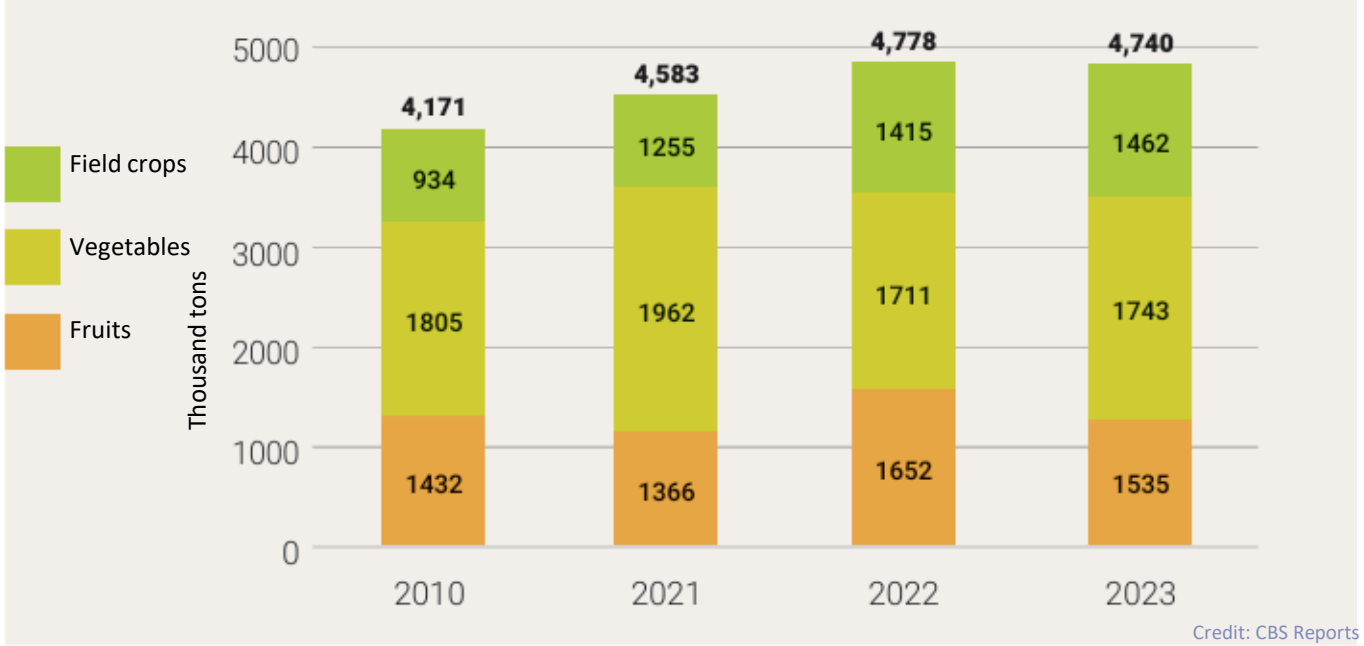


Peak year: 2023 – NIS 20.7B

It can be seen that the main growth in recent years is linked to increased orchard production, notably in the date and avocado industries and in 2023, also in citrus. This is in contrast to the majority of the deciduous sector, which have faced hardships in recent years.

There is hope that the scope of avocado production will continue to expand, with estimates of approximately 150K dunams (≈ 37,000 acres) of planted avocados. However, there has been some leveling off in planting. The vast majority of avocado production is designated for exports (approx. 60%). For this reason, the future of this sector depends heavily on the situation in the global markets and price levels.

Israeli Agriculture - Production



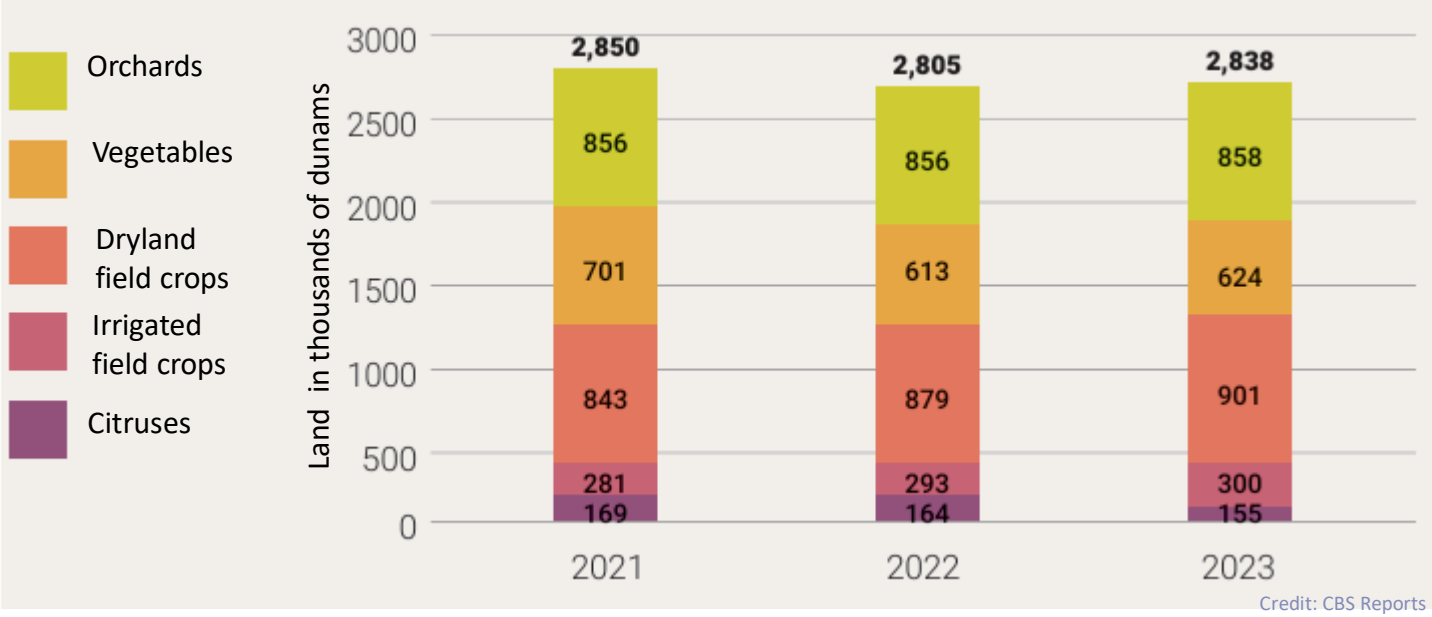
Peak year: 2014 – approx. 5,534K (5,534,000) tons

In 2023, agricultural production amounted to approximately 4,740K tons. The fruit sector saw a decrease following poor yields in several sectors, linked in part with a scarcity of chilling portions. Despite this decline in production, primarily due to the pricing levels, the overall output value of the fruit sector increased, as shown in the previous chart. In contrast, there was an increase in output in the vegetable and field crop sectors. Notably, potato production saw a significant increase, which may be partly due to the fact that 2023 followed a *shemitah* year.

Notably, although cultivated areas have decreased compared to peak years, the decline in agricultural output has been more moderate in certain crops. While this is an approximate figure and includes various crops and cultivars, it may indicate improved yields in some crops. This assessment is further supported by field knowledge and firsthand information from several growers across different crops. In this context, it is also worth highlighting the excellent agricultural research in Israel, a world leader in the field, which—G-d willing—continues to support crop improvement.

Farmed Dunams – Agricultural Areas

No significant changes



Peak year: 2003*– 3,292K dunams (813,000 acres)

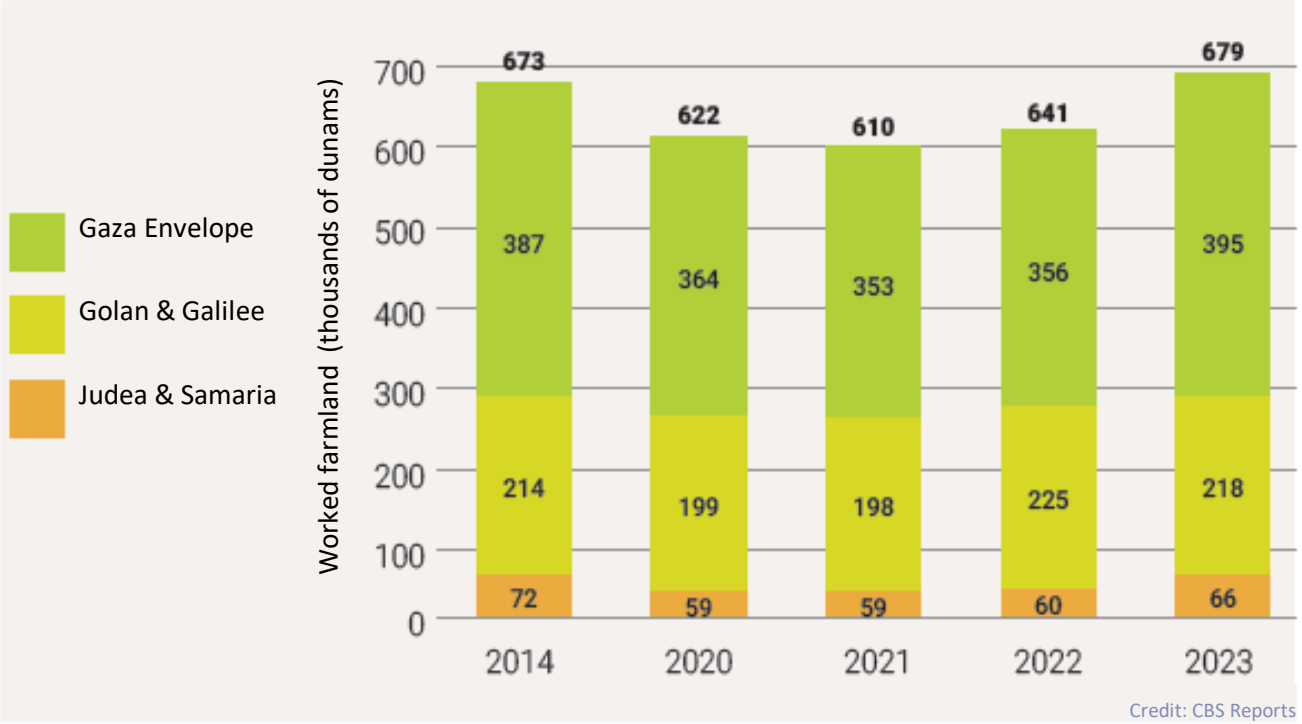
A moderate increase was recorded in 2023, reaching 2,838K dunams (≈ 701,200 acres), though in practice this reflects a relative stagnation in the expansion of new agricultural areas. The calculation of land area is based on estimates (reported areas only), but it does reflect broader trends. There was a decrease in citrus groves to 155,000 dunams (≈ 38,300 acres), though overall, the area appears to have relatively stabilized. In orchards, stabilization is also evident, partly influenced by the *shemitah* year.

The deciduous fruit sector continues to face significant challenges—some due to viruses affecting orchards, and others due to declining profitability in the industry. Notably, according to some models, approximately 6,000 new dunams (≈ 1,480 acres) need to be planted annually to meet the food demands of a growing population. Achieving this goal will require a significant increase in planting, beyond the current pace.

* Prior to 2003 the mode of calculation changed, so it is not possible to compare to preceding years.

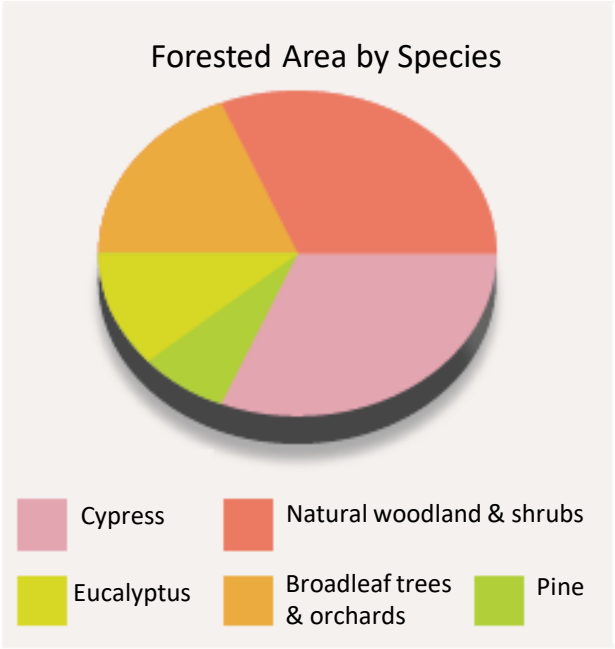
Farmed Dunams – Farmland in Periphery Areas

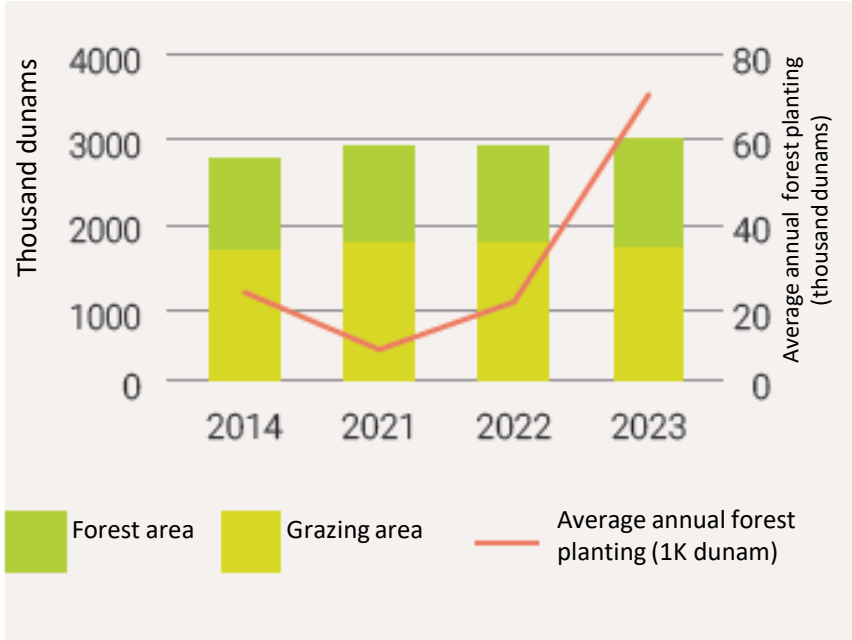
Moderate increase in scope of farmland area



A moderate increase in cultivated areas has been recorded; however, the data does not yet fully reflect the impact of the war. In the Golan Heights, a new trend is emerging of summer-season vegetable cultivation, aiming to capitalize on the region's relatively favorable summer conditions. In Judea and Samaria, there has been a slight expansion in agricultural land use, but a substantial increase in water allocation is required to effectively utilize this largely untapped area. In the Gaza Envelope, cultivation areas remain relatively stable, with most of the growth concentrated in the Halutza region.

Forest and Grazing Areas





In 2023, forest areas covered 1,328K dunams (≈ 328,200 acres), marking a significant increase compared to 2022. Looking at the average annual growth in forest area, the trend is even more encouraging, with consistent increases over recent years—reaching 68K dunams (≈ 16,800 acres) in 2023 alone.

Recent efforts have focused on increasing the proportion of broadleaf species. Since 2000, this proportion has risen dramatically, and today, most trees planted are no longer conifers but broadleaf and other native species. This shift is important not only because many of these trees once were an integral part of Israel's natural landscape, but also because broadleaf species are generally less vulnerable to wildfires.
Currently, grazing lands account for approximately 5.8% of state-owned land, while forests cover about 4.7%. (Forest coverage percentages may vary slightly between reports, depending on how the total state-owned land area is defined.)

- Moderate increase in overall crop production and yield; however, production remains below peak years.
- The increase in production is most significant in the orchard sector (notably for avocado and date cultivation).
- The deciduous fruit sector faces declining profitability and cultivation challenges, including viruses.
- There was a slight increase in worked farmland compared to last year, yet a general decline over the past decades.
- Forest tree planting shows a positive trend, with increased planting activity and a rise in natural woodland and broadleaf trees, which are now estimated to outnumber conifers.
- Agricultural development is taking place in new areas such as Halutza and mountainous regions (Judea, Samaria, and the Golan Heights), though some areas face infrastructure shortages.
- There is an effort to promote mechanization across various agricultural sectors to improve efficiency and reduce labor dependency and cultivation costs, but currently, widespread commercial use is still limited.
- There is a growing issue for several crops due to viruses and soil-borne diseases. Affected sectors include tomatoes, watermelons, melons, deciduous orchards, and vineyards (though the last mentioned shows some improvement). In some cases, intensive cultivation without adequate crop rotation has made it difficult to maintain soil health.

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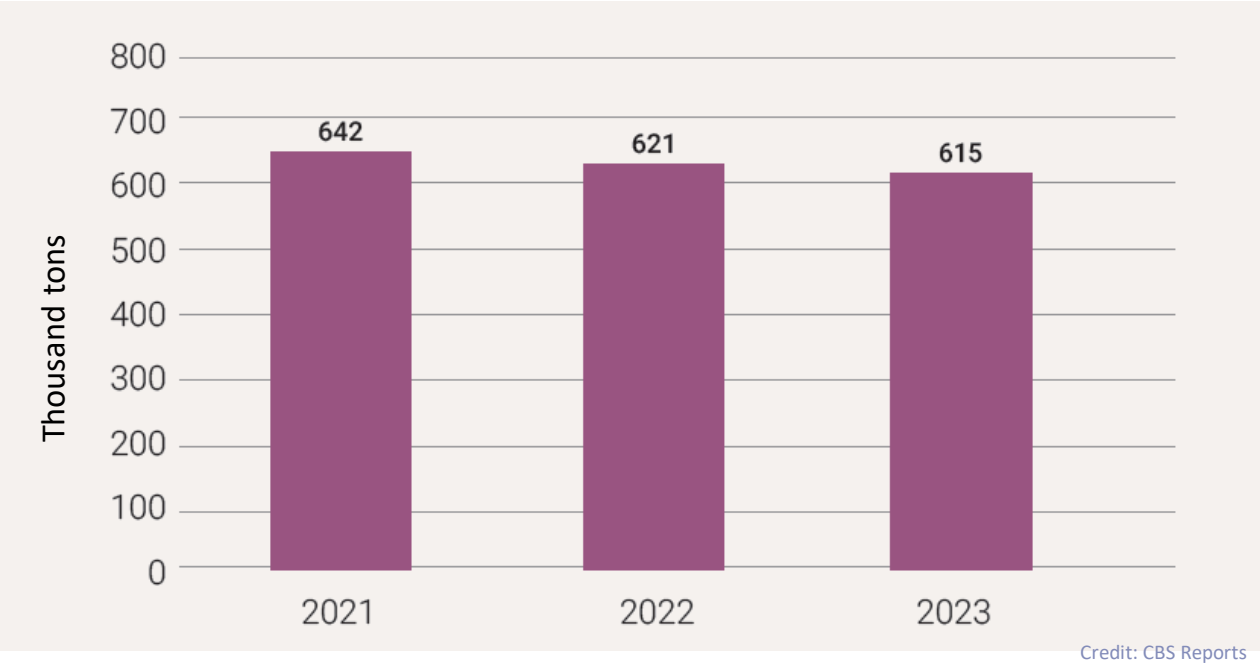
Imports and Exports

Export of Fruits, Vegetables & Additional Crops



Credit: CBS Reports

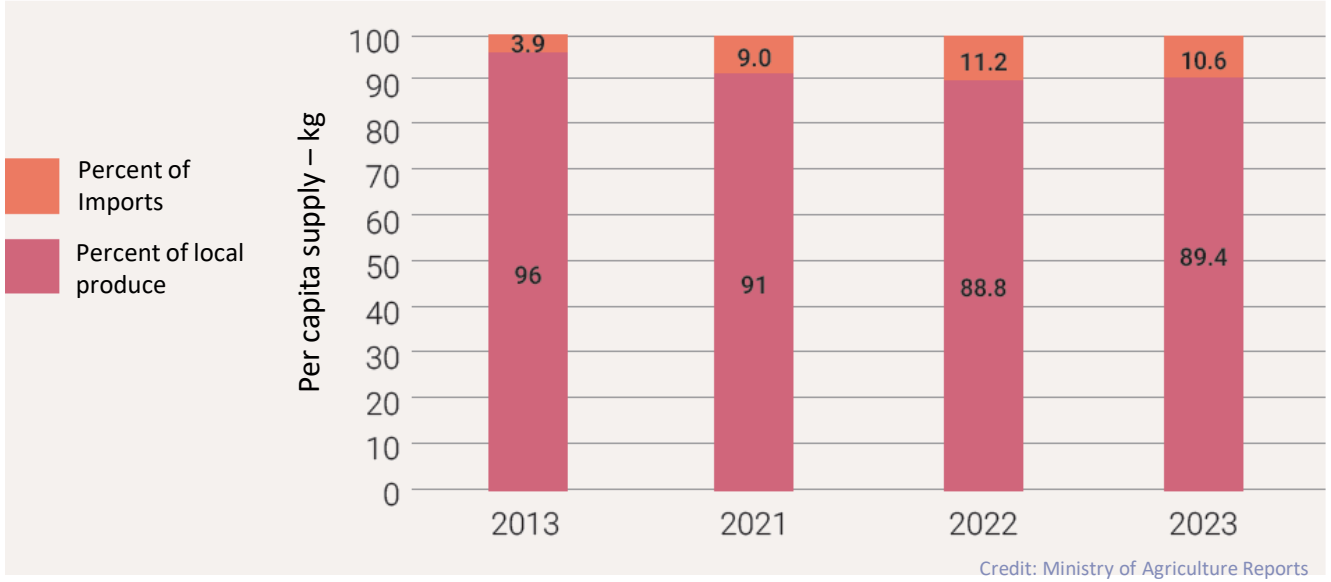
Relative stagnation in exports, with a multi-year trend of moderate decline

According to CBS data, there is no recorded increase in avocado exports. However, it appears that in the final seasonal data, there is a significant rise that may impact the overall results. There is no change in the leading exported fruits – avocados, followed by dates – together account for over 80% of total fruit exports.
Similarly, in the vegetable sector, potatoes and carrots together make up approximately 80% of total vegetable exports.

The proportion of agricultural production that is exported remains unchanged – around 12% of total production. (Some crops are exceptional, such as avocados, where exports comprise about 60% of total production.)

Competition with Imports – Israeli Agriculture Prevails

Over the past decade, imports have been on the rise, but have stabilized over the past 3 years



Peak year for imports: 2022 – 11.2%* of personal consumption

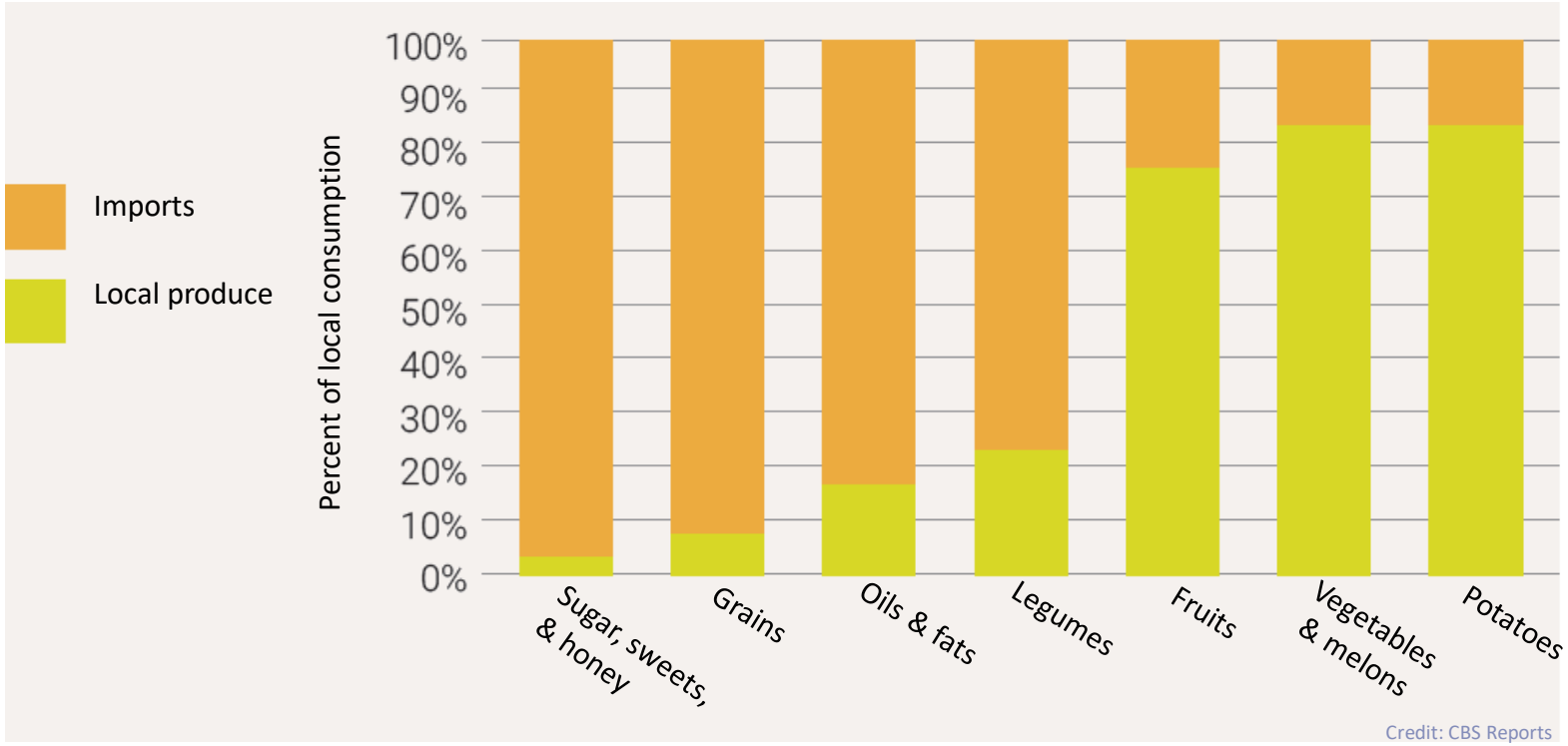
The year 2023 was lower than 2022, which was a *shemitah* year, but higher than 2021. This reflects a trend in which the opportunities opened during the *shemitah* year are not always rescinded afterward, thereby harming local agriculture in the following years. This underscores the need to establish clear mechanisms ensuring that import permits tied to *shemitah* do not extend beyond their intended timeframe. This year as well, the majority of fruit imports focused on apples and pears. Notably, tomato imports from Turkey and Jordan declined due to the war due to sanitary issues discovered in those supply chains. However, given the decline in domestic tomato production in recent years, there were difficulties at times in maintaining a steady supply to the local markets.

Israel relies on imports for several products (see next page), but it is important to protect sectors where local agriculture is successful and can efficiently meet domestic demand. This also depends on easing the burden on Israeli farmers by reducing labor costs and finding solutions to help them compete with imports.

Recent quality assessments comparing local and imported produce revealed that Israeli products often demonstrate a clear advantage. These findings point to a structural imbalance, where local farmers face stricter regulations not imposed on foreign producers—such as bans on certain pesticides, stringent water quality standards, and significantly higher labor costs for foreign workers compared to competing countries.

* The data was updated by CBS retroactively for this year

Food Supply Balance



The food supply balance provides insight into the relationship between dependence on imports and local production. It shows that while domestic production meets most of the consumption needs for fruits, vegetables, and melons, it contributes only a small share—just a few percent—to the supply of sugar, grains, and legumes. This is largely due to the high demand these crops place on water and land—resources that are currently limited in Israel. While in the modern global economy, free trade and imports contribute to economic efficiency, it remains critically important for the local market to maintain the capacity to supply a broad range of products independently. This is vital both for food security and for minimizing reliance on foreign markets—especially during times of crisis, such as war, but also under normal conditions. Focusing on profitable crops and improving the efficiency of domestic agriculture can strengthen the country's resilience, while also supporting economic well-being and maintaining reasonable prices for the public. It is worth noting a **relatively new crop being grown in Israel—barley for beer production**—which until recently was entirely dependent on imports. While still limited in scale, it represents a step toward increased self-sufficiency.

- There is a continued downward trend in exports, yet it is relatively moderate.
- The decline is due in part to intense competition with other countries, where growing costs are significantly lower. It is important to identify crops that have a clear and stable advantage given Israel's conditions.
- A notable bright spot is the avocado sector, which continues to develop and increase its export volumes.
- An additional positive development is the rise in cotton export, which has increased in recent years.
- Import volumes have somewhat declined, in part due to the war which has stopped trade with certain countries.
- Nonetheless, the overall level of imports remains high. Often, import channels opened during the *shemitah* year are not closed afterward.
- Potato imports have risen significantly this past *shemitah,* despite the crop's long shelf-life and storage potential.
- In several quality assessments, imported produce was found to be of inferior to domestically-grown produce. Furthermore, regulatory standards in many exporting countries are often considerably lower than those in Israel, creating an uneven playing field and distorting competition.

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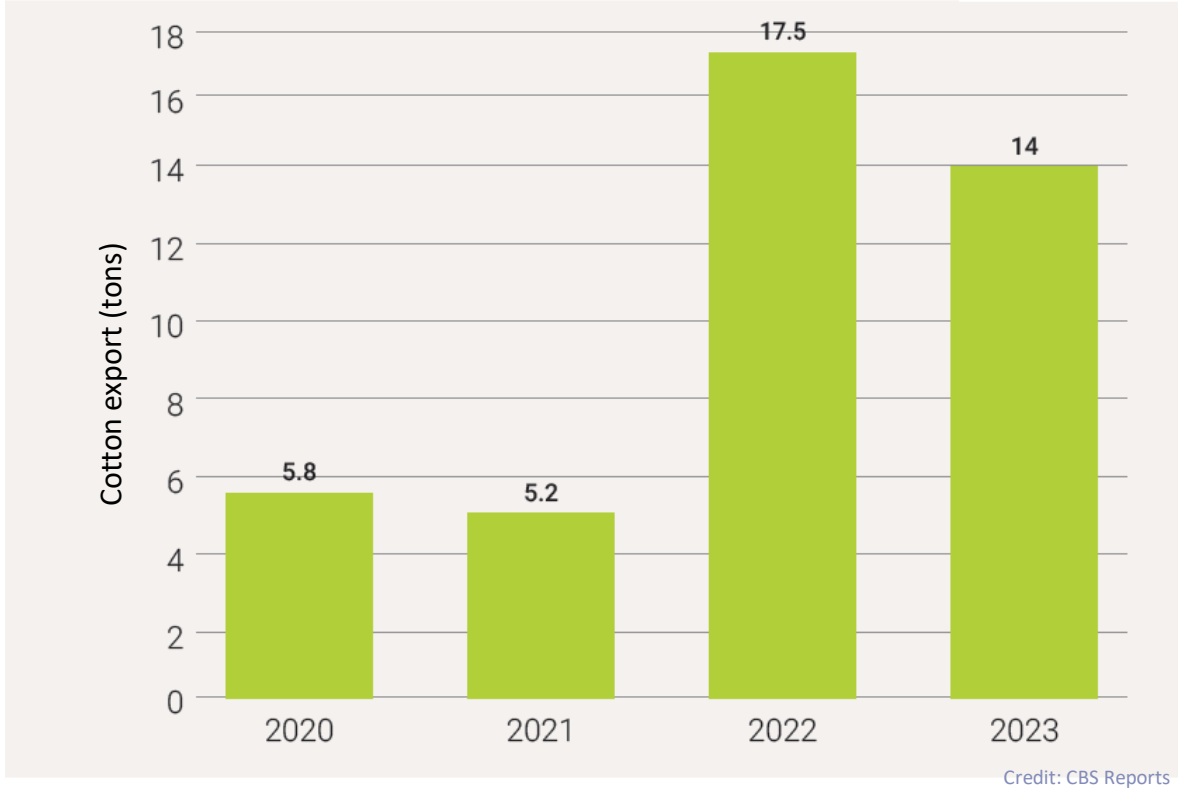
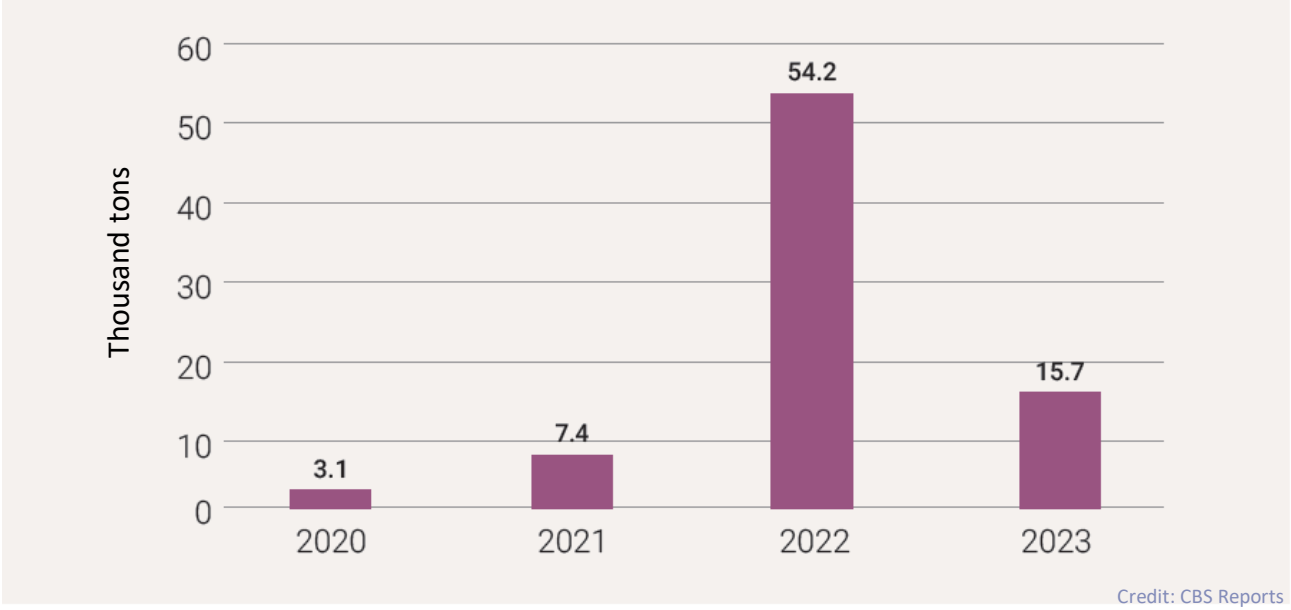
Changes in Specific Crops

Crop in Progress: Cotton



Credit: CBS Reports

Cotton is a crop that has seen a significant decline compared to its peak levels 30–40 years ago. However, in recent years, **cotton exports have begun to rise again—a promising development and an indication of potential for renewed growth**.
In 2022 and 2023, cotton exports reached 17.5K and 14K tons, respectively—a substantial increase compared to merely 5.2K tons in 2021.
Still, these figures remain far from the peak export levels; for comparison, in 1990 cotton exports stood at 42.9K tons. Israeli cotton is considered to be of very high quality and enjoys demand in premium global markets. There is hope that the upward trend of the past two years will continue. However, this depends heavily on global market conditions and pricing, which remain unstable at present.



Potatoes are a major crop for many field crop farms and kibbutzim. The majority of potatoes are grown for export, making them an important contributor to the overall output of the agricultural sector. A concerning trend in recent years has been the increase in potato imports—despite the crop historically being a distinctly local product.
In 2022, a *shemitah* year during which some consumers prefer imported produce, imports reached a record high of approx. 54K tons. This represents a notable departure from previous *shemitah* years, such as 2013–2014, when imports remained significantly lower.

It is important to note that, unlike many other products, potatoes can be stored for extended periods. This allows reliance on produce harvested during the sixth year to supply much of the *shemitah* year. Therefore, it is essential to ensure that locally grown potatoes continue to be maintained as a large and significant crop in Israeli agriculture.

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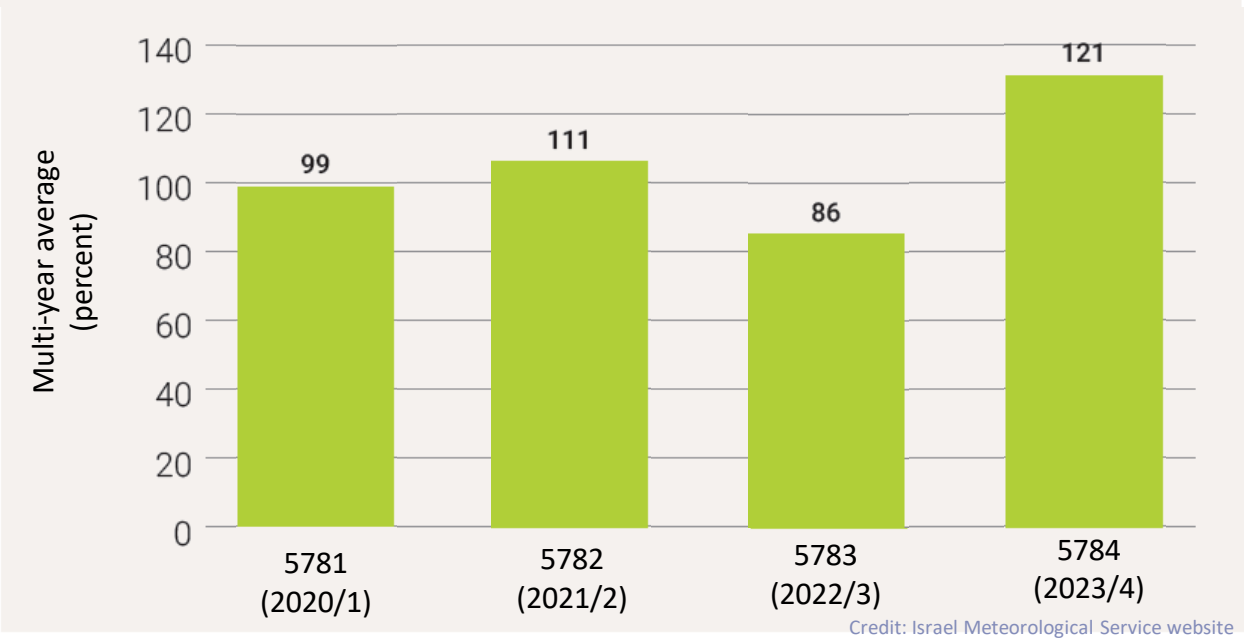
Water Consumption Precipitation & Climate



Credit: Israel Meteorological Service website

Record year – 1992, 172% of the multi-year average

The data was taken from the database of the Israel Meteorological Service. The year 5784 (2023–2024) was a rainy year, with 121% of the multi-year average rainfall recorded nationwide. At the time this report was written, final data for 5785 (2024–2025) was not yet available, yet it is already clear that it has been a year of severe drought.

Despite this, it can be seen that over the past five years, rainfall has generally been at or above average. However, in the southern region—where many of the wheat-growing areas are concentrated—the recent years have been less rainy. We pray, with G-d's help, that this will change in the coming years.

Notably, there has been a relative stagnation in secondary water resource utilization. For several years now, the proportion of secondary water has remained roughly 65% of all agricultural water. While this is a world-leading figure, it also reflects a plateau following years of decline in the use of freshwater for agricultural purposes.

There is a clear need to explore new water sources—for example, improving the treatment and utilization of wastewater in Judea and Samaria. Currently, these waters are underutilized and in some cases even contribute to groundwater pollution.

One of the key challenges in agriculture today is meeting the growing demand for food driven by a rapidly expanding population, thank G-d. This requires not only increasing agricultural output but also expanding the area under cultivation. Additionally, certain crops are facing increasing difficulties—some due to intensive farming without adequate crop rotation, and others due to rising summer temperatures.
For instance, tomato cultivation has struggled in recent years with various viruses and heat stress during the summer months. Similarly, watermelon production has become more challenging in parts of the country, even when using hardy rootstocks.

A potential solution to both of these issues lies in expanding agriculture into new regions, some of which offer more favorable summer climates. Large tracts of underutilized land exist in the mountainous areas and hill country lowlands—particularly in Judea and Samaria—as well as in semi-arid frontier zones like the Halutza region and others.
While the potential of these areas is beginning to gain recognition, realizing it fully will require substantial government support. Developing these regions could facilitate the use of additional water sources, geographically diversify agricultural activity, and enhance overall efficiency. In some cases, this may involve using protected structures and soilless growing media—solutions that would require careful economic feasibility studies.

In addition, for orchard crops—which have faced mounting challenges—exploring new growing areas is only part of the solution. Implementing innovative, cost-effective cultivation methods like the fruit wall shows promise. This technique involves vertical trellising of trees with pruning that minimizes horizontal branching, optimizing sun exposure and making the trees more accessible to mechanization.
Currently being tested on deciduous trees and even citrus varieties, the fruit wall method has the potential to significantly reduce labor costs and even boost yields. We are hopeful that research and development in this area will continue to advance in the coming years.

Conclusions

The Second Agriculture Report by Torah VeHa'artez Institute presents a largely stable outlook across Israel's agricultural sectors. This stability reflects, on one hand, the resilience of Israeli agriculture, which has managed to remain strong despite the challenges of war and other difficulties. On the other hand, it highlights the ongoing need to cultivate new drivers of agricultural growth.

In the coming years, Israeli agriculture will likely continue to face pressures from increasing imports and consumer expectations for lower prices. As a result, the need for greater mechanization across additional crops and farming processes will become more critical. This transition is essential not only for improving efficiency but also for addressing the growing labor shortage and rising labor costs in the sector. Encouragingly, efforts in this direction are already underway in several areas, and we hope to see them expand to additional crops and regions.

Recent years have made it clear to the Israeli public that imports are not a silver bullet—even when they seem to offer cheaper alternatives. This became especially apparent during wartime, when disruptions in import continuity due to security concerns exposed the fragility of relying on foreign sources. At the same time, there are crops whose prices continue to rise, despite the fact that crops of the same type are heavily imported.

We believe that Israeli agriculture is not only a national, Zionist priority but also a *mitzvah* and a deeply rooted Torah value. As such, agriculture will continue to serve as a vital anchor—connecting the people of Israel to their land and their identity—while efforts persist to strengthen its development, profitability, and long-term sustainability.

This report was prepared by Agronomist Yehuda Heller, R&D Department of Torah VeHa'aretz Institute
Thank you to all of the professionals who helped us access the material