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Commodity Intelligence Report

Poland 2024: Agricultural Conditions Summary

Poland is the one of the largest agricultural producing countries in the European Union (EU). It is typically the third largest wheat, rapeseed, and corn producer within the EU. It is the EU's second-largest rye producer and the world leader in triticale (Figure 1). Poland also grows significant quantities of silage corn, barley, oats, potatoes, sugar beets, and beans, among other crops.

Agricultural land comprises about half of Poland's area and arable farmland is over a third of the national area. Crop acreage is one of the highest in the EU and according to the Polish Statistics Office there are 1.3 million farms, but the average farm size is small, about 11 hectares, usually spread among different locations and different villages. Small and dispersed arable plots prevent benefiting from economies of scale. These numerous small-scale farms also make data collection and statistics challenging (Figure 2).

During 2024, many areas in Poland experienced their earliest harvest in history for their primary winter crops of wheat and rapeseed. This can be seen in the high April and May values in the satellite-derived Normalized Difference Vegetation Index (NDVI) graph (Figure 3). This accelerated growth was a result of a warm fall and mild winter that initiated fast and extensive early vegetative growth. In some fields, excessive fall moisture caused the loss of some winter wheat area. This lost winter area was replanted with spring wheat or another summer crop in early spring. Above-average spring temperatures during flowering and filling encouraged further rapid advancement of wheat and rapeseed. Both wheat and rapeseed were harvested in most areas of the country by mid-July when analysts from the USDA Foreign Agricultural Service (FAS), World Agricultural Outlook Board, and FAS/Warsaw were in-country on a crop tour (Figure 4).

Wheat is the dominant crop in Poland, grown throughout the country. Production for marketing year (MY) 2024/25 is estimated at 12.6 million metric tons (mmt) from 2.5 million hectares (mha) (Figure 5). Overall, wheat yields have been on a gradual increase over the years while area has remained relatively stable or has even been declining slightly (Figure 6). The wheat yield for MY 2023/24 is estimated at a record 5.55 tons per hectare (t/ha), while MY 2024/25 is estimated to be 5.14 t/ha. Wheat quality is particularly affected by rain at harvest (Figure 7), which was problematic this summer, resulting in lower quality. Rapeseed, also a very important crop in Poland and grown across the country, is estimated at 3.3 mmt from 1.0 mha (Figure 8).

For USDA's area, yield, and production estimates for Poland and other EU member states, please visit PSD Online at https://apps.fas.usda.gov/PSDOnline/app/index.html#/app/home, and select "Downloadable Data Sets." Select the zipped file for "EU Countries Area & Production."

Much of Poland's grain must be dried as it is frequently harvested wet. Most notably, corn is often harvested at 30 percent moisture. Storage levels for corn need to be about half that. Expenses for energy-consuming dryers can be very high, eating into profitability. Corn during 2024 was doing very well in July due to warm and wet conditions. Expectations are for a bumper corn crop. Grain corn (not silage) is a relatively new crop in Poland. In the last generation, area to corn has expanded significantly with the advancement of short season varieties (Figure 9). Poland's corn harvest surpassed 1.0 mmt for the first time in 2001/02. USDA's corn estimates do not include silage corn. Silage corn continues to be heavily cultivated in Poland.

Farmers have increasingly added storage facilities on their farms, allowing them to hold crops until prices reach more favorable levels. EU funding has greatly assisted in this achievement. Without the increased on-farm storage prior to EU membership, most farmers were forced to sell at a discount during harvest. Fertilizer costs, another significant expense, are being mitigated by using less. Another common way that farmers save money is by using non-certified seeds. Of course, both practices typically reduce yields while they save up-front costs. GMO crops are not cultivated, and pests continue to be a big problem. EU restrictions on inputs have limited the type and number of treatments. The ban on neonicotinoids has been particularly difficult for rapeseed growers in Poland (and for other nations within the EU). The high price of land, labor, and capital were also cited as difficulties for Polish farmers.

Although it still comprises just a small percentage of the Polish crop, winter varieties of barley are increasingly being planted in Poland. The milder recent winters have enticed farmers to plant barley in the fall with increasing confidence of it surviving the winter. These autumn-planted varieties typically yield higher due to their longer season and the benefit of cool-season soil moisture. Soils in Poland are often quite sandy, where moisture is lost rapidly. The poorer soil types in Poland are behind the large amount of rye and triticale (included in USDA's mixed grains category) that are grown in Poland. Without exception, the topic and challenges of climate change and extreme weather was brought up by every contact, whether they were farmers, researchers, or government officials.

Poland borders Ukraine and Belarus. Russia's invasion of Ukraine in February 2022 and its impact on Poland was of great concern, according to the farmers, researchers, and government officials. While they were quick to express that they are completely behind Ukraine and that they are their biggest supporters, there is a fear about its enormous production capacity and the efficiencies that Ukraine would bring if it became an EU member. Currently there is considerable disagreement in Poland about whether Ukrainian grain is "leaking" and finding its way into the Polish market or if it is truly

bypassing the country in its convoy to western Europe. The size and scale of Ukraine's agriculture cannot be ignored by the small-scale farms in Europe. Ukraine's agricultural strength and its future looms large over Poland's agricultural competitiveness.

Figure 1. Ripe triticale in north-central Poland on July 25, 2024. Photo from FAS.

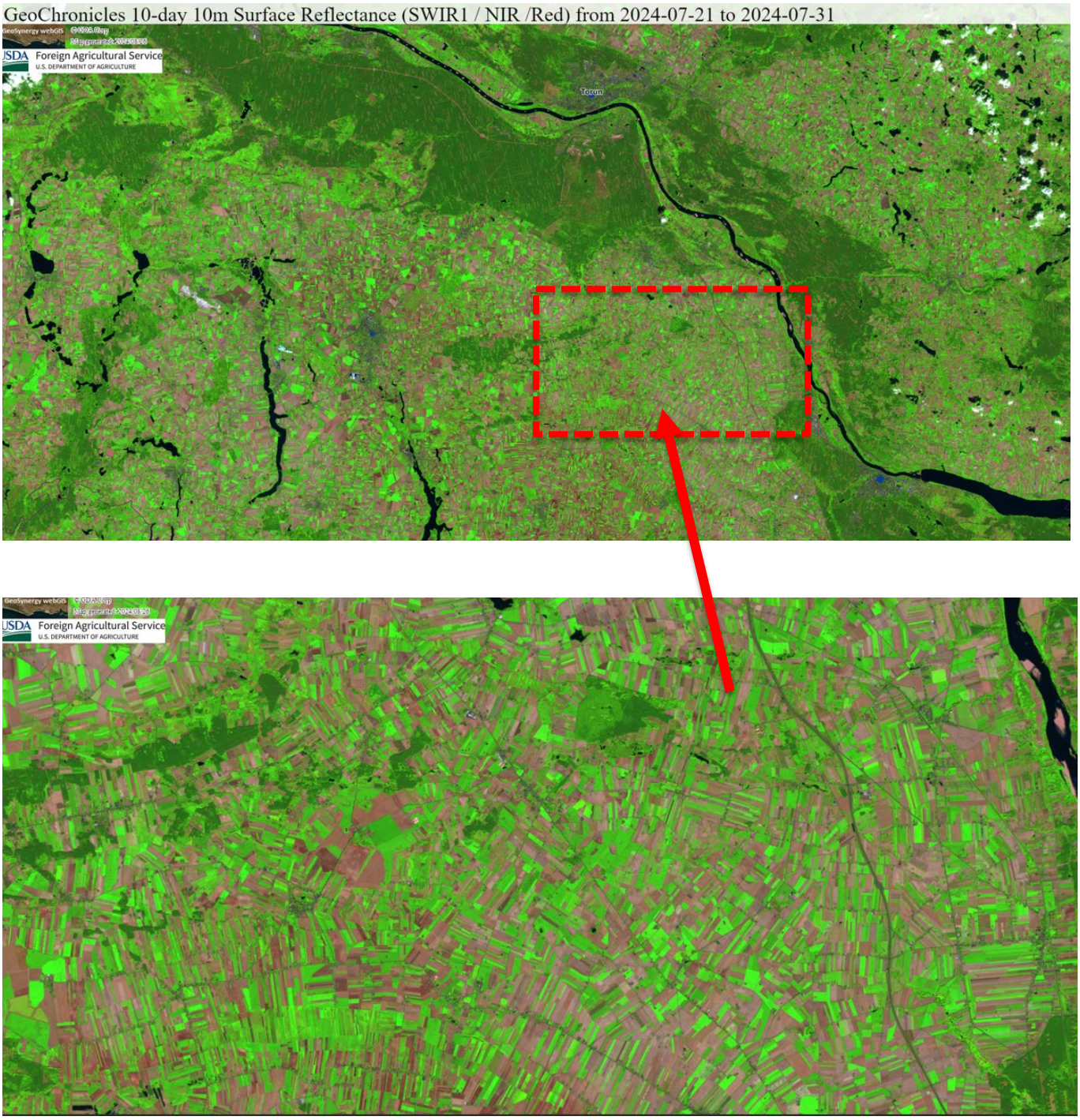

Figure 2. 10-Day Sentinel Satellite (10m resolution) composite image taken during the last 10 days of July 2024 during the crop tour. Image and zoomed-in image show array of small farms typical of Poland's agricultural landscape. Image is near the north-central town of Torun (Northwest of Warsaw). Source: GeoChronicles.

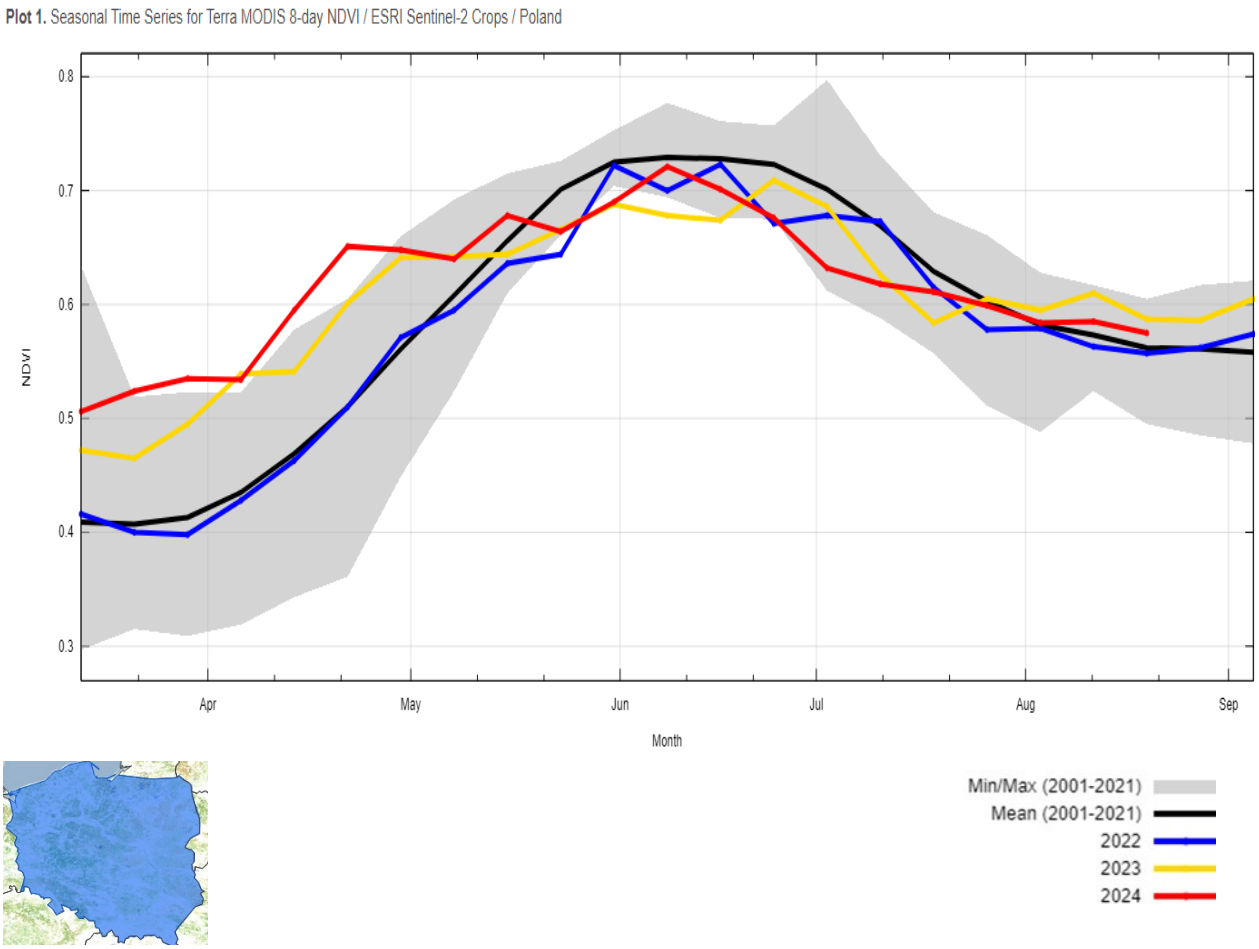

Figure 3. MODIS NDVI in cropland-masked area of Poland showing the early and extensive green-up in early spring. SOURCE: NASA/USDA Global Agricultural Monitoring (GLAM).

Figure 4. A stork follows a harvester as it collects wheat on a very small field in north-central Poland on July 26, 2024. Photo from FAS in August 2024.

Figure 5. Unharvested wheat in north-central Poland on July 25, 2024. Photo from FAS.

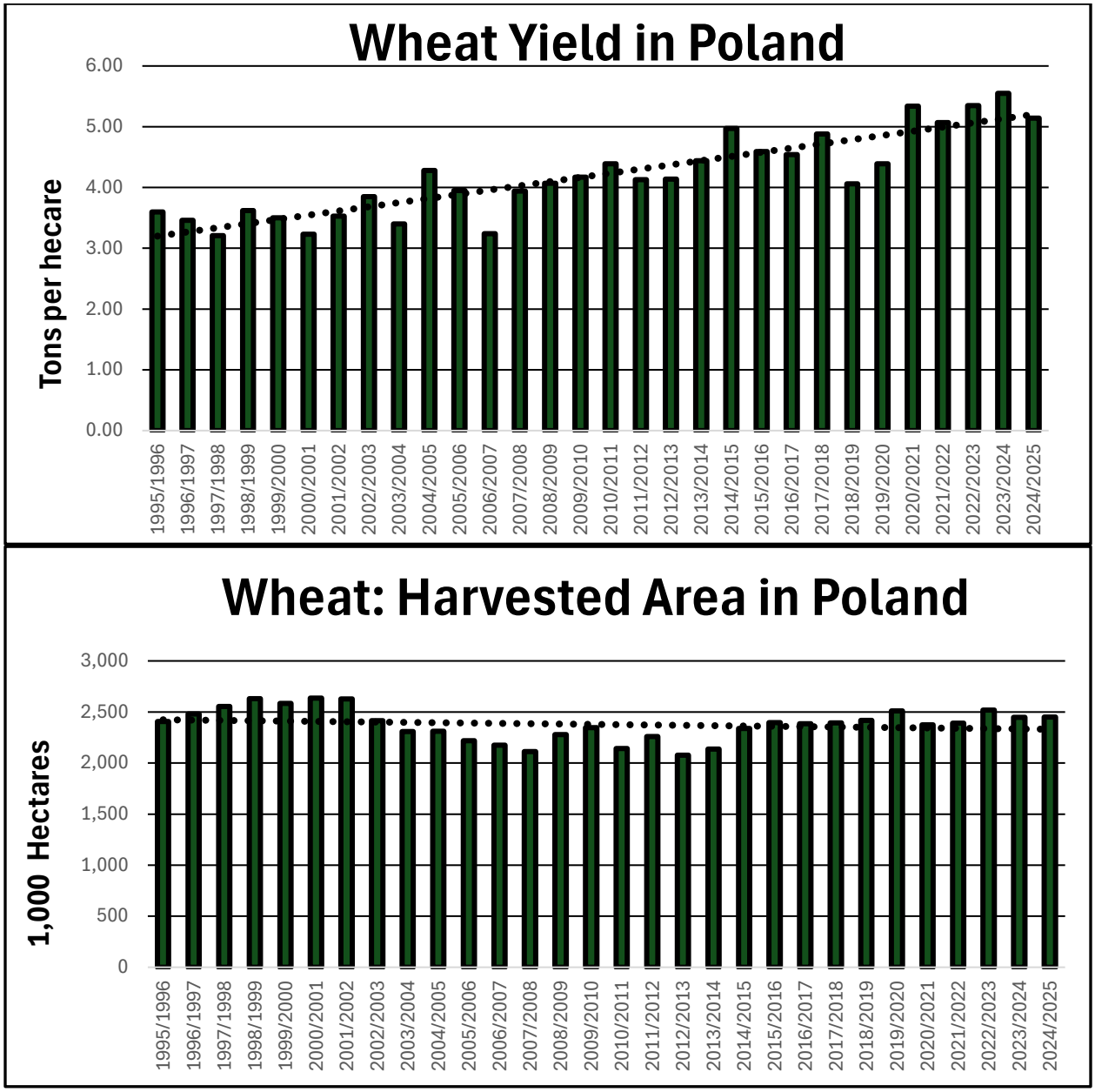

Figure 6. Wheat yield in Poland has been rising while harvested area has been stable or decreasing slightly. Source: USDA PSD Online.

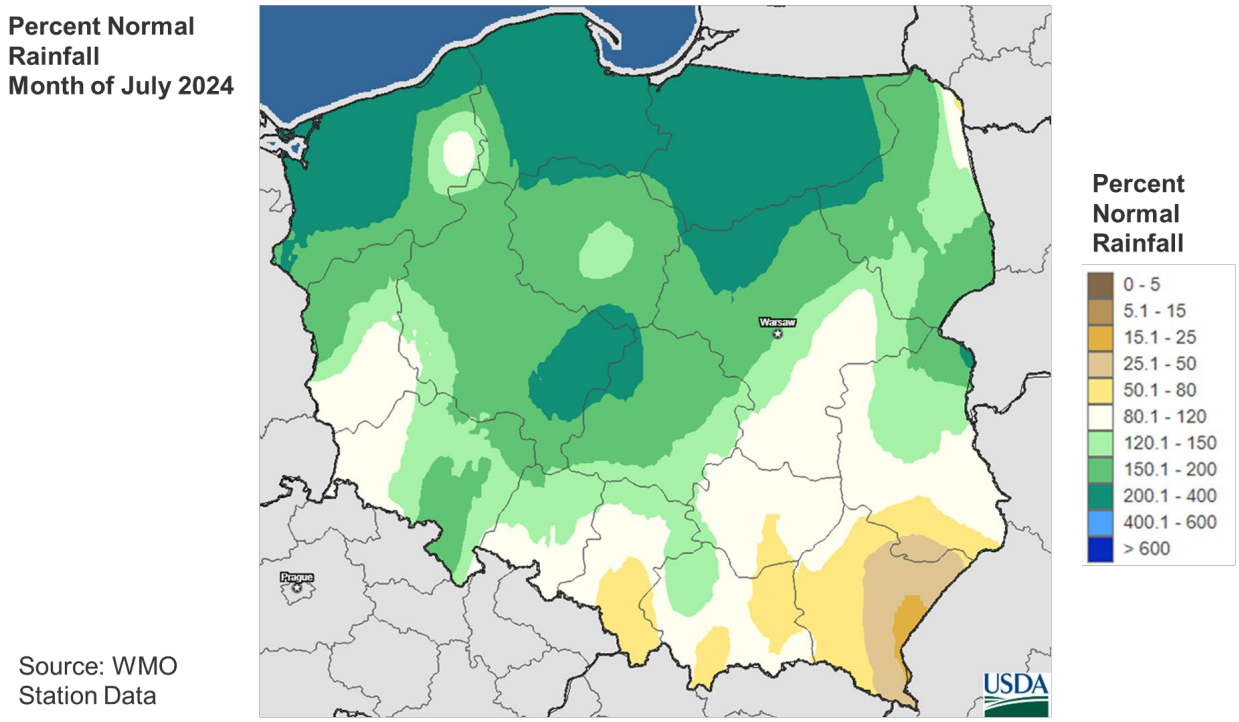

Figure 7. Percent of normal rainfall for the month of July showing excessive rain in the north and central, which contributed to lowering wheat quality. Source: WMO Station Data.

Figure 8. One of the last Polish rapeseed fields to be harvested, near Torun, north-central Poland, taken on July 25, 2024. Photo from FAS.

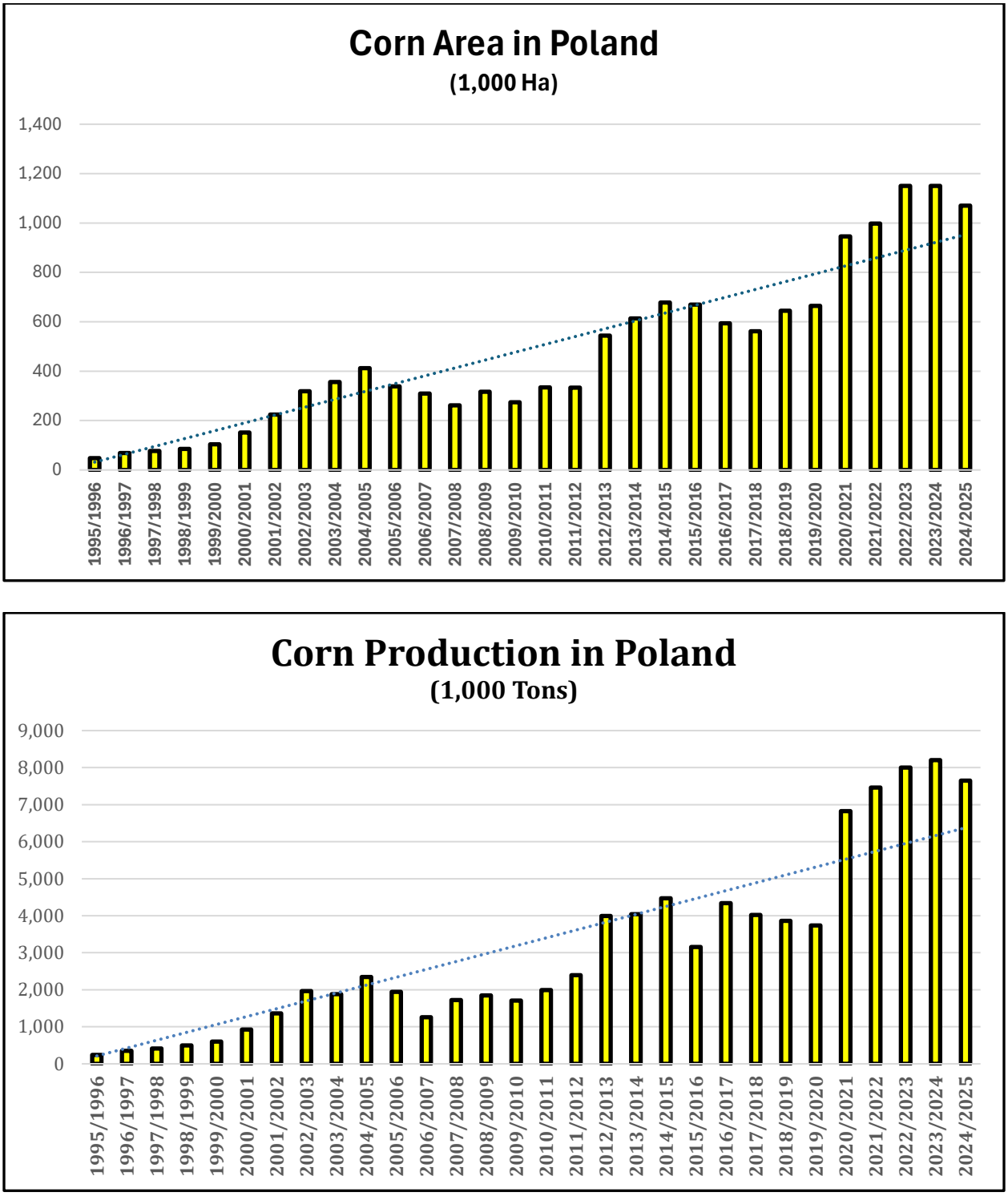

Figure 9. Corn area and production in Poland has increased dramatically over the last 30 years. Source: USDA PSD Online.

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For country-specific area, yield, and production estimates within the European Union (EU), please go to PSD Online at https://apps.fas.usda.gov/PSDOnline/app/index.html#/app/home, and select "Downloadable Data Sets." Select the zipped file for "EU Countries Area & Production."

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Current World Agricultural Production Reports
https://www.fas.usda.gov/data/world-agricultural-production

Production, Supply and Distribution Database (PSD Online)
https://apps.fas.usda.gov/psdonline/app/index.html#/app/home

Global Agricultural Information Network (Agricultural Attaché Reports)
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Crop Explorer
https://ipad.fas.usda.gov/cropexplorer/

Global Agricultural and Disaster Assessment System (GADAS)
https://geo.fas.usda.gov/GADAS/index.html