

# Austrian Soft Wheat from the Crop 2024

## Preface

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*Ladies and Gentlemen,  
Dear Customers and Friends of Austrian Wheat!*

*This year's difficult weather conditions have also affected the Austrian wheat harvest.*

*A lower acreage as well as average yields due to weak tillering in spring led to a below average harvest result in Austria, as in many parts of Europe.*

*The cool and moist weather until the middle of June did however have a positive influence on grain development and ripening.*

*As last year, the protein levels are this year lower than usual. For this reason, only small quantities of Premium Wheat are available for export. As last year Milling Wheat and Quality Wheat predominate.*

*The correlation between protein and gluten is very high, due to the slow ripening process. The wheat displays ideal kneading and baking properties and provides a high flour yield due to above-average natural weights.*

*The quality of Austrian wheat is better than last year due to its excellent baking quality and good inner values.*

*Although the leading agricultural exchanges remain under pressure due to a good supply situation and the extremely large "short positions" of financial investors, the weak harvest in parts of Europe as well as the disappointing qualities in large parts of Europe allow optimism to arise for marketing the goods.*

*We are convinced that Austrian wheat of the 2024 crop will in every respect meet the high qualitative requirements of our customers at home and abroad.*

The wheat crop 2024 in Austria at 1,457,000 t lies 8.5% below the good result of last year. This year's crop is thus classified as below average (5.1% below the average). The main reason for the reduction in production is the marked reduction of 9,130 hectares in the acreage, as the wet and cold Autumn did not allow planting as planned.

The harvested yields per hectare are average at 60 quintals per hectare (0.6% below average), however below the good yields of last year (-4.5%). The crop year began with a wet autumn, which did not allow winter cereals to be planted as originally planned. The precipitation quantities over the autumn more than doubled. At the onset of vegetation in spring the required quantities of rain were, however, lacking. From the middle of February to the middle of April a quarter less rain fell than in 2023 (68.4 mm against 89.6 mm), while the temperature rose to an unusually high level (6 days above 25°C against no days last year). The consequence of this was poor tillering (formation of side shoots), which is decisive for the quantity of harvested ears per square metre and therefore for the development of yield. On the other hand, the ensuing plentiful rainfall in combination with fewer hot days allowed the development of many kernels per ear. The corn filling period was marked by an even larger precipitation level (26% above last year), which allowed very good corn filling. The quality of the wheat including hectolitre weight and inner values is therefore rated very good.

The traditional Austrian quality wheat region covers the central and eastern parts of the province of Lower Austria and the northern and central parts of the province of Burgenland. In climate terms this region is called the continental Pannonian climate zone (Figure 1). As a result of long-term observations, we know that this climate zone is the best region for the production of high-quality wheat, a fact which has come to be known all over Europe. Although the yields are not as high as in the western parts of Lower Austria and in Upper Austria due to the lack of rainfall, the climate is highly favourable to the development of very good baking qualities.

Moreover, this region profits from the deep and rich humus soil that also has an influence on the wheat quality.

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In the milling wheat region (western Lower Austria and Upper Austria) the quality parameters are inferior, but they usually produce a good milling quality (Figure 1).

The essential parameters for the baking quality of wheat are protein quantity, protein quality and the gelatinization of the starch. The protein quantity is determined by the variety as well as by weather conditions, soil, fertilization, and climate. The protein quality on the other hand is mainly a genetic characteristic and thus a variety feature. Gelatinization of the starch depends essentially on the weather conditions before harvest.

# Wheat Varieties

The Austrian wheat varieties are graded into 9 quality categories, category 1 representing the lowest and category 9 the highest baking quality. In the Pannonian climate zone in eastern Austria the quality wheat varieties are dominant, which are classed into the baking quality categories 7 to 9. The leading quality wheat varieties are "Aurelius", "Axaro", "Capo", "Christoph" and "Arminius." Among the milling wheat varieties, which are classed into the baking quality categories 3 to 6, the varieties "SU Habanero", "Tiberius", "Spontan" and "RGT Reform" are significant.

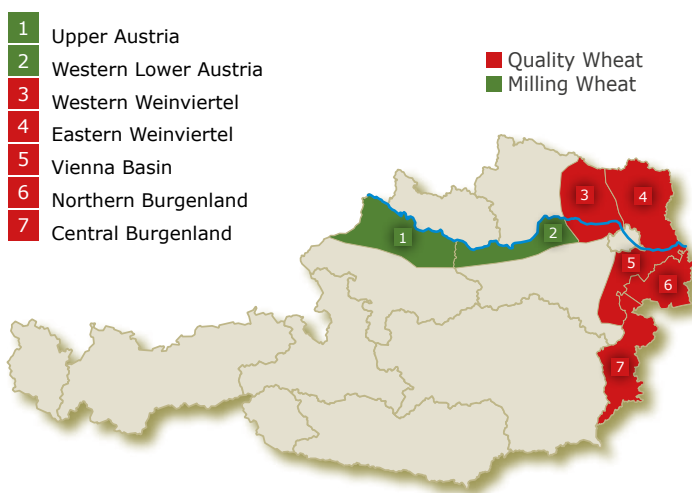
# Yields

Table 1 lists crop areas, average yields, and total production as well as available quantities. For the crop 2024 the figures for market availability are estimates.

## Production and available quantities of quality and milling wheat per crop year

After last year's increase the wheat area was reduced greatly by 9,130 hectares and reached 238,294 hectares. The areas shown in Figure 1 in the eastern part of Austria came to 136,215 hectares, which is a full 6,756 hectares less than last year. The crop area in western Lower Austria and in Upper Austria reached 63,800 hectares, losing 9,710 hectares compared with 2023. The average yield of soft wheat in the entire area is expected to be 60,1 dt/ha. This means that the region has a total production of quality and milling wheat of around 1,200,000 tons (estimates). Available from this region from the crop of 2024 is around 1,140,000 t, of which around 63% of the quantities are to be found in the Pannonian climate zone.

Figure 1  
Quality wheat and milling wheat regions



# Quality Criteria

The quality data listed in the table below are based on a crop survey made by "Agrarmarkt Austria" and the "Versuchsanstalt für Getreideverarbeitung" (Institute for Cereal Processing) in Vienna which drew samples at the various wholesale buyers and analysed them. The recorded date of the quality data for 2024 as well as of the comparative data from 2023 is August 1st, thus the results are provisional ones.

The average hectolitre weight of quality wheat is 81.4 kg and is very good. In Upper Austria and in western Lower Austria the hectolitre weight is, at 80.2 kg/hl, also good. For this reason, the milling quality of the new crop is very good. More details about the hectolitre weights in the different regions are to be found in tables 2a and 2b.

## Quality Parameters of Quality and Milling Wheat Crop 2024 in comparison to last year

Figure 3 displays averages of this year's quality and milling wheat crop. The protein content, at 14.2% in the quality wheat area, is excellent. The gluten content is equally good at 33.6%, which is somewhat elevated in relation with protein. In the milling wheat area, a protein content of 13.4% was measured, which is above the minimum value for milling wheat at the Exchange for Agricultural Products (12.5%). The wet gluten content is in the usual relation with protein content, so that a good average of 30.0% was measured.

## Quality Survey 2024 – Protein Contents and Falling Numbers of Quality Wheat

Tables 3a and 3b list the protein contents and the falling numbers of the Pannonian climate regions and the milling wheat regions. The protein levels in the quality wheat area and falling numbers in all areas are very good.

## Quality Survey 2024 – Farinogram and Alveogram in the Quality Wheat Area

Table 4 lists the behaviour of wheat in processing. The Farinogram characterizes the consistency of the dough. The average dough development of 4.9 minutes is excellent. Dough stability at 24.1 minutes is a wonderful result.

For the Alveogram the W-value in the quality wheat area with an average result of 315 units is very good. The ratio of P/L of 0.5 is ideal.

## Farinogram and Alveogram of the crop 2024 in the survey areas of quality wheat and milling wheat

The behaviour of wheat of the various Pannonian areas is listed in table 5a and of the milling wheat areas in table 5b.

The Farinogram stability and the W-values as per Alveogram are very good in the quality wheat area. Farinogram and Alveogram values of milling wheat are good.

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# Mycotoxin Contamination

The problem of the mycotoxin DON (Deoxynivalenol) caused by Fusarium has been studied in Austria for many years (examination of the influencing factors in field tests, evaluation of head blight in variety classification tests, etc.). In particular, the large-scale field monitoring conducted by the Chambers of Agriculture and the samples analysed give on the one hand an excellent survey of the contamination in the various regions, and on the other hand they make it possible to develop adequate agricultural strategies for the reduction of infection risk. From this viewpoint the Austrian wheat producers have been well prepared to respond to the introduction of the maximum mycotoxin level of wheat applicable at present (DON 1000 µg/kg).

The contamination of this year's crop in the quality and milling wheat areas is classified as medium and remains below the limit.

# Contamination with heavy metals and pesticide residues

Besides the contamination with mycotoxins, we would also like to point to the lack of contamination of Austrian cereals production and milling products with heavy metals. The "Versuchsanstalt für Getreideverarbeitung" (Institute for Cereal Processing) found no contamination with lead, cadmium, or mercury in qualitative analysis of any cereal or cereal product from the Austrian Federal Area between 2015 and 2024.

In Austria, no residue of Glyphosate was found in wheat, rye, and milling products, whereas in the whole European monitoring area 8% of samples analysed were found to be contaminated with Glyphosate.

## Summary

This year's wheat crop is smaller than last year and contains a smaller percentage of quality and premium wheat. The gluten quality specifically, as expressed in the measurement Structural Swelling Number ("Strukturquellzahl"), is very good.

Regarding the baking quality the **quality wheat harvest in 2024** in the Pannonian area is classified as very good. The hectolitre weights are of the highest, therefore excellent milling qualities are expected. Protein and wet gluten values are very good and

comparable with last year. The falling number values are very high, comparable to the values of last year, so that good starch gelatinization values are expected. The Farinogram and Alveogram results lead to expectations of excellent processing characteristics. The values in the **milling wheat areas** are, as expected, lower than in the quality wheat area, but are good.

The mycotoxin levels (DON) are below the limit in the whole wheat area.

Figure 2

Quality of Quality and Milling Wheat Crop 2024 in comparison to the previous year

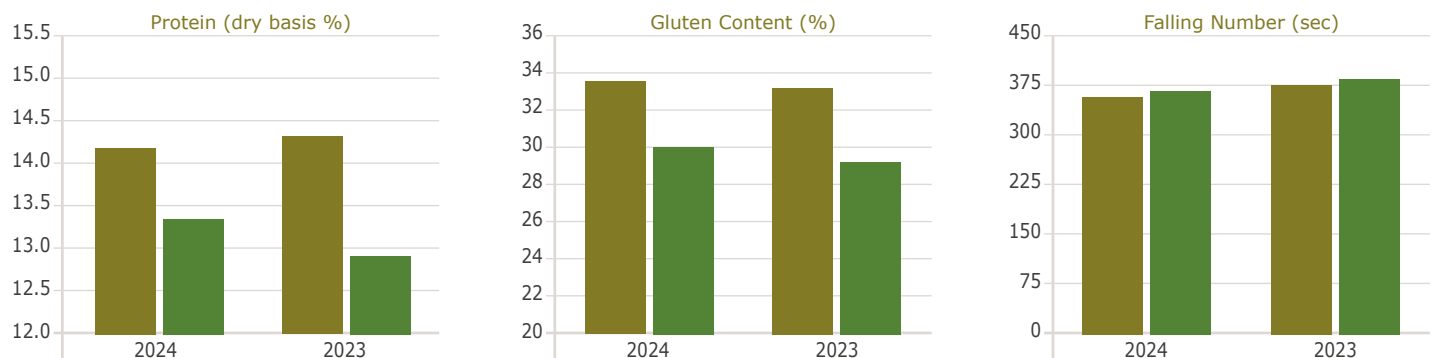


Table 1

Production und available quantities of quality and milling wheat per marketing year

Survey Area	2024/25 Estimate				2023/24 Final				2022/23 Final			
	Area in ha	Yield in dt	Production in t	Availability in t	Area in ha	Yield in dt	Produktion in t	Availability in t	Area in ha	Yield in dt	Production in t	Availability in t
Northern Burgenland	14,009	47.4	66,465	<b>63,142</b>	15,293	51.6	78,841	<b>74,899</b>	15,595	43.8	68,378	<b>64,959</b>
Middle Burgenland	8,991	53.8	48,345	<b>45,928</b>	9,998	54.6	54,621	<b>51,890</b>	9,733	44.6	43,446	<b>41,274</b>
Vienna Basin	18,196	53.6	97,567	<b>92,689</b>	18,708	58.5	109,400	<b>103,930</b>	17,596	49.0	86,251	<b>81,938</b>
Eastern Weinviertel	40,890	55.4	226,552	<b>215,224</b>	43,810	58.4	255,870	<b>243,076</b>	44,231	48.9	216,215	<b>205,404</b>
Western Weinviertel	54,130	60.2	325,616	<b>309,336</b>	55,162	63.0	347,765	<b>330,376</b>	55,516	59.1	327,892	<b>311,497</b>
	136,215	56.1	764,546	<b>726,318</b>	142,971	59.2	846,496	<b>804,171</b>	142,672	52.0	742,182	<b>705,072</b>
Western Lower Austria	14,394	63.6	91,505	<b>86,930</b>	22,289	57.8	128,859	<b>122,416</b>	21,587	63.0	136,046	<b>129,244</b>
Upper Austria	49,406	70.0	345,843	<b>328,550</b>	51,221	75.2	385,182	<b>365,923</b>	49,279	78.0	384,376	<b>365,157</b>
	63,800	68.5	437,348	<b>415,481</b>	73,510	69.9	514,041	<b>488,339</b>	70,866	73.4	520,422	<b>494,401</b>
<b>Total</b>	<b>200,015</b>	<b>60.1</b>	<b>1,201,894</b>	<b>1,141,799</b>	<b>216,481</b>	<b>62.8</b>	<b>1,360,537</b>	<b>1,292,510</b>	<b>213,538</b>	<b>59.1</b>	<b>1,262,604</b>	<b>1,199,474</b>

\* Remarks on the area: The following areas for organic farming are included: 2024/2025: 41,249 ha • 2023/2024: 43,592 ha • 2022/2023: 41,658 ha • 2021/2022: 40,658 ha

# Quality Survey 2024

Table 2a

## Hectolitre Weight of Quality Wheat

Average Hectolitre Weight

Survey Area	2024	2023	2022
Northern Burgenland	80.1	82.2	83.0
Central Burgenland	80.9	79.8	82.0
Vienna Basin	82.4	82.9	83.4
Eastern Weinviertel	81.4	82.8	83.3
Western Weinviertel	82.5	83.0	82.0
Average	81.4	82.1	82.7

Table 2b

## Hectolitre Weight of Milling Wheat

Average Hectolitre Weight

Survey Area	2024	2023	2022
Western Lower Austria	82.1	83.3	83.0
Upper Austria	78.2	80.8	81.4
Average	80.2	82.1	82.2

Table 3a

## Protein Contents and Falling Numbers of Quality Wheat

Average Protein in dry matter %

Survey Area	2024	2023	2022
Northern Burgenland	14.4	14.0	15.7
Central Burgenland	14.4	14.8	15.1
Vienna Basin	14.1	14.3	14.8
Eastern Weinviertel	14.2	14.1	14.8
Western Weinviertel	14.2	14.4	14.7
Average	14.2	14.3	15.0

Average Falling Number in sec.

Survey Area	2024	2023	2022
Northern Burgenland	355	376	364
Central Burgenland	338	378	374
Vienna Basin	363	389	370
Eastern Weinviertel	397	376	378
Western Weinviertel	375	364	355
Average	366	376	368

Table 3b

## Quality Survey 2024 – Protein Contents and Falling Numbers for Milling Wheat

Average Protein in dry matter %

Survey Area	2024	2023	2022
Western Lower Austria	14.4	14.8	14.5
Upper Austria	12.4	11.0	12.6
Average	13.4	12.9	13.5

Average Falling Number in sec.

Survey Area	2024	2023	2022
Western Lower Austria	385	379	349
Upper Austria	356	375	349
Average	370	377	349

Table 4

## Average Farinogram Results

Quality wheat area

	2024	2023	2022
Stability	24.1	21.7	24.7

## Average Alveogram Results

Quality wheat area

	2024	2023	2022
W (Total Energy)	315	305	357
P/L = Resistance/Extensibility	0.5	0.5	0.5

Table 5a

## Farinogram und Alveogram of the crop 2024 in the survey areas of quality wheat

Survey Area	Stability	W (Total Energy)	P/L, Resistance/Extensibility
Northern Burgenland	20.0	325	0.6
Central Burgenland	23.7	355	0.4
Vienna Basin	22.7	310	0.6
Eastern Weinviertel	28.2	282	0.6
Western Weinviertel	26.1	304	0.5
Average	24.1	315	0.5

Table 5b

## Farinogram and Alveogram of the crop 2024 in the survey areas of milling wheat

Survey Area	Stability	W (Total Energy)	P/L, Resistance/Extensibility
Western Lower Austria	25.8	329	0.6
Upper Austria	6.4	186	1.0
Average	16,1	257	0.8

Tabelle 6

## Mycotoxin Contamination

Survey Area	DON 2024 [ $\mu\text{g}/\text{kg}$ ]
Northern Burgenland	810
Central Burgenland	714
Vienna Basin	208
Eastern Weinviertel	267
Western Weinviertel	162
Western Lower Austria	790
Upper Austria	416

The contamination level of the current crop is regarded as low in the quality and milling wheat areas, being well below the maximum tolerance of 1250  $\mu\text{g}$  DON/kg.