



Harvest Report 2021

Information by application technology

A company of the

Wheat flours

Comparison of key figures for wheat flour type 550

Key figures	Harvest 2020	Harvest 2021
Falling number in sec.	290 – 360	280 – 340
Protein in %	11,5 – 12,8	11,3 – 12,8
Wet glue in %	26,0 – 30,0	25,5 – 30,0
Glue characteristics	elastic – highly stretchable	elastic – highly stretchable

Scheme of production technology

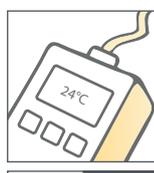
Harvest 2021

Kneading



maintain

Temperature of the dough



23-25 degrees Celsius

Resting time of the dough



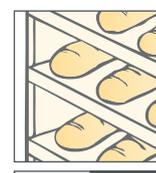
shorten slightly

Mellowness



normal mellowness up to slightly shortening

Baking



increase starting temperature / reduce baking through temperature

Dough output

Our wheat flours show a comparably good water absorption with excellent dough characteristics. As a rule, the dough outputs can be kept.

Kneading

In general, the levels of your previously most favorable overall kneading time do not have to be changed. For individually setting your perfect kneading time, our technical expert will be glad to be of assistance.

Dough temperatures

The most favorable temperatures of the dough should be set at 23–25 degrees Celsius for the direct processes and at 23–24 degrees Celsius for the rising control. The appropriately controlled dough temperature influences the development of the dough to a high extent and therefore is an essential factor for the quality of the baked goods.

Resting time of the dough

The common operational resting time of the doughs should be reviewed and slightly shortened, if applicable. Regarding all kinds of long-time processing, we recommend a relaxation period of 5–10 minutes for the bread rolls dough.

Adding pre-doughs

Pre-doughs can still be used without hesitation, but may be slightly reduced in their dosage. The amount of flour for the pre-doughs can be up to 20%. Such aromatic pre-stages are especially suitable for the production of highly aromatic wheat baking goods with an improved structure of the bread crumbs.

Retarded proofing and refrigeration processes

Different technologies of retarded proofing - long-time dough processes enable the production of highly aromatic and up-market baking products from wheat. As a rule, the parameters of these processes can be maintained.

Our wheat flours of this year are characterized by:

- a similar water absorption in relation to the previous year
- stabile dough properties
- an attractive volume of the goods baked
- a good dough formation

Rye flours

Comparison of the key figures for rye flour

Key figures	Harvest 2020	Harvest 2021
Falling number in sec.	210 – 270	180 – 240
Gelatinization maximum in AU	600 – 1100	500 – 950
Gelatinization temperature in °C	68 – 74	66 – 72

Production of sour dough

Outputs of sour dough and temperatures

Sour doughs should be reviewed and slightly adjusted to the ripening- and aromatic development, if applicable. This adjustment prevents a too rapid acidification of the sour doughs. We recommend implementing regular pH-value and degree of acidity checks.

For bruised grain rye doughs using medium-sized granulations is advisable.

Dough production

Dough temperatures for rye- and rye-mix bread doughs can generally be maintained. A sufficient yet not too extended resting time promotes the swelling of the rye flour and prevents damper dough surfaces.

The proportion of the flour quantity to be acidified does not have to be adjusted.

Dough output

In comparison to the prior year the outputs of mainly rye-based doughs can be slightly raised.

Kneading

The kneading time provided last year should be maintained for this year as well. Sufficient kneading of rye doughs on a slow level promotes a maximum volume formation.

Starting baking temperatures can be slightly increased.

Production of bruised grain bread

When producing bruised grain bread a sufficient swelling is to be taken into account.

Bruised grain bread doughs can be kept a little firmer.

Resting and fermentation times of the dough should be slightly shortened.

Starting baking temperatures should be reviewed and raised, if applicable.

Our rye flours of this year are characterized by:

- a slightly increased water absorption in relation to the previous year
- a very good acidification of the sour doughs
- a good baking volume
- a strong formation of crusts and browning
- a good shelf life
- aromatic baking goods

Spelt flours

Comparison of the key figures for spelt flour

Key figures	Harvest 2020	Harvest 2021
Falling number in sec.	320 – 360	250 – 340
Protein in %	15,0 – 17,8	14,5 – 16,5
Wet glue in %	39,0 – 44,5	37,0 – 42,0
Glue characteristics	elastic – highly stretchable	elastic – highly stretchable



Our spelt mainly originates from monitored grain cultivation (“Ährenwort”). By a significant extension of acreage for spelt in 2020, we hope to reach our target for a 100% cover from monitored grain cultivation. The combination with our baking analyses guarantees a sustainable and mainly regionally produced spelt flour with perfect baking properties.

In case you may require support with creating recipes or optimizing existing products, please feel free to contact our technical experts.

Checking dough output

Our spelt flours show a higher water absorption with stable dough properties. For the quality’s sake of the baking goods, the amount of water added should be adjusted and also fully utilized to prevent dry bread crumbs.

Kneading intensity

If possible, spelt flour doughs should be kneaded longer and less intensively than usual wheat doughs. Please note to set the time distribution for kneading on approx. 70/30.

Kneading long and less intensively promotes the glue integration well, without stressing it too much as well as binding the added water perfectly.

Our technical expert will be glad to be of assistance setting the ideal kneading times for your kneading machine.

Temperatures of the dough

The ideal temperatures for directly processing the dough should be set at 23–25 degrees Celsius and for controlling the fermentation time at 22–24 degrees Celsius.

The controlled setting of dough temperature influences its development positively and therefore is a significant factor regarding the quality of the goods baked.

Resting time of the dough

The resting time set for spelt doughs should be 50 % higher than for usual wheat doughs. This results in an ideal dough ripening despite lower enzyme activities and a good swelling of the flour components.

Durum/Hard wheat

Comparison of the key figures

Key figures	Harvest 2020	Harvest 2021
Vitreousness in %	> 90	> 90
Yellow pigment content	26,0	26,0
Protein in %	14,5 – 16	14,0 – 15,0
Falling number in sec.	290 – 410	260 – 400

Our regionally generated durum grain provides very good quality properties with regard to the vitreousness- (> 90%) and color values. Furthermore, the low enzyme activity is of advantage for the production of fresh dough products.

Fusarium infections occurred only rarely, the proof of vomitoxin (DON) in occasional batches was significantly below the statutory limits.

Taste meets valuable ingredients



Ruch flour is a flour speciality from the Allemann-Swiss cultural region. It is the basis of various highly aromatic, strongly baked and especially lush baking specialities.

Our HeimatÄhre special flours for unique, state-of-the-art baking specialities combine traditional culinary pleasure with valuable ingredients and attractive value creation - additional values which are to be used.

You will be especially enthusiastic about the high water absorption properties with stabile, easily processable doughs, which provide a maximum of flexibility for creating recipes.

Apart from distinct advantages for your baking products with regard to quality, you support our intense commitment to regional business cycles and sustainable farming.

Our focus on bio-diversity, ie the large variety of species und ecological systems, marks another statement for environmental protection.

The harvest and its conditions in 2021



The winter cereal sowing took place at favourable climatic conditions with sufficient precipitation leading to good soil water reserves. Starting conditions for the stock development after sowing were positive.

Since January rainfall amounts have been above seasonal average with the crops having remained without any damage from the cold spell in February. After three years being characterized by heat and drought, the climate conditions changed significantly since the spring. The temperatures were lower than on multi-annual average and volatile weather conditions slowed down the development as well as the growth of the grain. Due to mild yet extensive rainfalls especially in May the yield potential was increased and the climatic conditions for the cereal filling were favorable. In summer we have undergone extremely volatile weather situations in major parts of Germany with cultivation being impaired by storm and extreme rainfalls.

The harvest commenced approx. ten days later than the year before. Shortly after having started the threshing works, a sudden weather change again brought extremely rapidly alternating climatic conditions resulting in continuously interrupted harvesting activities. In contrast to last year's regional harvest being finished after two weeks completely, currently scarcely 60 percent have been regionally brought in two weeks after the threshing started. The further prospect is also subject to the permanently changing weather conditions, so that a final quality prognosis is still pending. Additionally, throughout many regions, but especially in the south of Germany, the unfavorable harvesting weather conditions impact the quality parameters. With a delayed and long enduring harvest not only the growing phase but also the harvesting situation in 2021 differs considerably from the past years.

Our impression regarding regional qualities show changed values for falling numbers and hectoliter weights. Due to the rainfalls, the cereals are wetter and protein- and gluten quantities are more widely spread. On the whole the quality spectrum is more heterogeneous than it previously used to be.

A barely supplied market soaks off rapid goods urgently. Harvesting pressure cannot be stated regardless of a larger harvest compared to last year. A strong international demand and a continuously high use of wheat for compound feed characterize the market constellation. Fundamentally, the situation of supply remains tense, which particularly applies to milling wheat qualities.

Development of the cereal market and prices

The global major insecurities in all the markets have not been eliminated this year either. Especially the commodities markets and the cereal market in particular have been showing a rise since the beginning of 2021 and additionally an enormous volatility since the middle of this year.

Along with the worldwide harvest further proceeding, time after time disillusionment has emerged.

Therefore, the prognoses for the harvests have had to be corrected several times.

Further influences such as shifting chances of exporting, massive changes in the environmental factors, currency valuations and the creation of state reserves in some countries play a significant role.

These factors strongly influence the grain price resulting in volatilities, which inhibit long-term and above all, reliable estimates.

Nevertheless, please be assured that our sustainably produced flour will always provide you with the highest baking qualities.

Again, we will surely reach a mutually acceptable agreement for you as our long-term, loyal client. Our technical expert will be glad to advise as well as actively support you and will contact you personally in the near future.