

# TRADITIONAL FOOD

A CULINARY TRIP  
THROUGH EUROPE



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# CONTENT

6 - 9	★	<b>TRAFUON PROJECT</b>	80 - 87	5	<b>SWITZERLAND</b>
			Apricot		
10 - 25	1	<b>SPAIN</b>	88 - 95	6	<b>ITALY</b>
Olive Oil & Table Olives			Vegetable Soup		
26 - 39	2	<b>FRANCE</b>	96 - 103	7	<b>SLOVENIA</b>
Cabbage			Buckwheat		
Durum Wheat			104 - 111	8	<b>CZECH REPUBLIC</b>
40 - 65	3	<b>NETHERLANDS</b>	Carp		
Mushrooms			112 - 151	9	<b>POLAND</b>
Bread			Apple		
Pulses			Mushrooms		
Oat			Vegetables		
66 - 79	4	<b>GERMANY</b>	Grains		
Ancient Grains & Mushrooms			Vendace		

10

152 - 167

## SERBIA

Plum

Raspberry

11

168 - 175

## GREECE

Mushrooms



176 - 177

IMPRINT,  
PHOTO  
CREDIT

## FOLLOW US ON OUR CULINARY TRIP THROUGH EUROPE!

With great pleasure the TRAF00N Consortium invites you to an extraordinary trip through Europe to discover the most delicious traditional European food. But before we start, we should clarify the term ‘traditional food’. Although everybody knows and uses this expression, it is hard to find a clear definition. TRAF00N defines “traditional food” as “food which is produced according to the gastronomic heritage of at least three generations, which shows specific feature(s) that distinguish it clearly from other similar products of the same category in terms of the use of “traditional ingredients” (raw materials of primary products) or “traditional composition” or “traditional type of production and/or processing method”. Furthermore, it is associated with a certain local area, region or country”.

Now we have more or less a rough idea about “traditional food”, but why is it so important? For thousands of years, traditional food has played a main role in the traditions and folklore of many different cultures and regions in Europe, being a basic part of their cultural heritage. Europe should be proud of its traditional food. Unfortunately, some examples of European traditional food are at risk of disappearing due to the increasing globalization and internationalization of the food market. Therefore, it is important to reverse the trend of losing century-old recipes and traditional food products to preserve a diverse, healthy and tasty diet for the European citizens. By preserving traditional food, we preserve our cultural and historical identity. With this booklet, TRAF00N gives you the opportunity to explore different European countries through their traditional food products based on grains, fish, vegetables, mushrooms, fruits and olives. With the help of local people from France, Germany, Greece, Italy, Poland, Serbia, Slovenia, Spain, Switzerland, the Czech Republic, and the Netherlands, you can discover the fascinating story of these traditional products, the incredible regions where they belong to, and the most delicious recipes.

Enjoy this delicious experience, enjoy our culinary trip through Europe!

## THE TRAF00N PROJECT

In the European Union, small and medium enterprises (SMEs) in the food sector are increasingly under pressure due to the opening of markets, an increasing consumer demand of standardized and price competitive food products, the growing importance of large retailers, and the challenges of conforming to governmental regulations.

To support traditional food SMEs, TRAF00N started in November 2013 to establish a knowledge transfer network with a focus on food products made of grains, fish, fruits, olives, vegetables and mushrooms. The TRAF00N network interlinks researchers, knowledge transfer agents, and SME associations in 14 European countries to foster the transfer of sustainable innovation and entrepreneurship in the sector of traditional foods for the benefit of European regions and consumers. This project stimulates interaction between traditional food SMEs, SME associations and research institutes to increase the knowledge transfer towards SMEs and to enable research topics that are needed by European food SMEs. Within the project, the needs of SMEs have been investigated all over Europe. These needs have been matched with available innovations. More than 55 Training workshops for SMEs and for food researchers have been carried out in 14 European countries. For more information please visit the project website ([www.trafoon.eu](http://www.trafoon.eu)) and the TRAF00N Information Shop ([www.trafoon.org](http://www.trafoon.org)).



Susanne Braun,  
Coordinator



Javier Casado Hebrard,  
Project Manager

# TRADITIONAL FOOD NETWORK



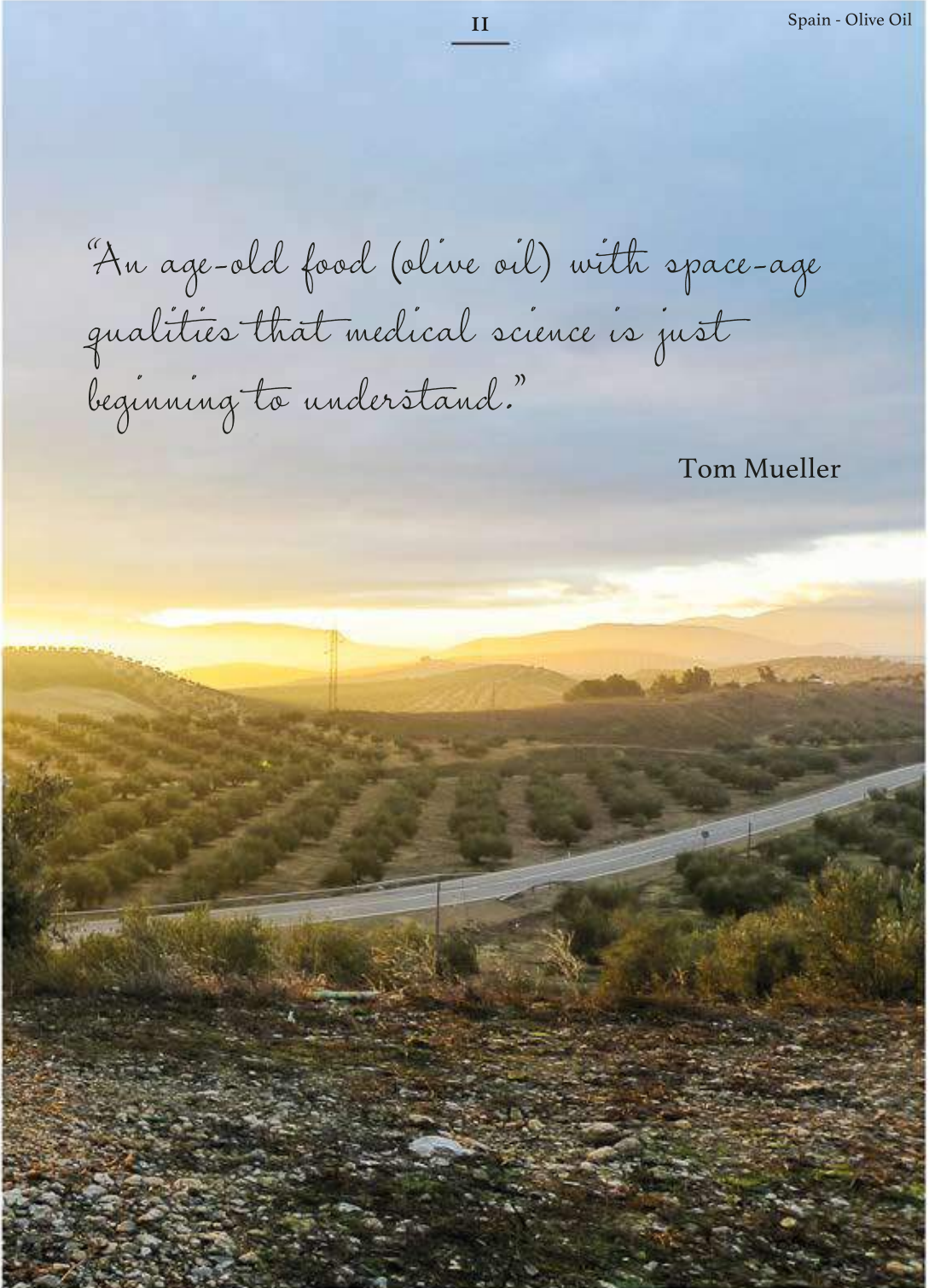






*“An age-old food (olive oil) with space-age qualities that medical science is just beginning to understand.”*

Tom Mueller





MARÍA PAZ AGUILERA

WORKER AT MENGÍBAR

## SPAIN: OLIVE OIL

I am M<sup>a</sup> Paz and I was born in Antequera (Málaga), but spent most of my adult life in the city of Linares (Jaén). At the moment, I work in Mengíbar, a little town in in the autonomous community of Andalusia, where the world's largest amount of olive oil is produced. Olive oil has always been a part of my life, not only because I am from Andalusia, but also because I grew up surrounded by the olive flavour and culture. Maybe that's why I ended up working as head of an olive oil test panel and researcher in the fields of olive oil production and quality.

My first memories of olive oil are the meals in the afternoon (a Spanish tradition called *merienda* which can be compared to England's teatime), which consisted of bread with olive oil and some fruit, sausages or ham. I also remember the harvesting season each year in December, when farmers and vehicles used to come and go and the olive mills got really busy.

### INNOVATIVE TECHNOLOGY FOR HIGH QUALITY PRODUCTS

I remember that, when I was a child, olive oil was sold in bulk and stored inside tin containers at home. It had a terrible rancid smell and I thought that this was how olive oil was supposed to smell. Nowadays, this would be unthinkable: olive oil is packaged and, a few years ago, Spanish law even established that it needs to be filled into disposable containers. The smell is also quite different (and better) because the process of production has been improved using innovative technologies for the traditional product. To give an example: the millstones in the old olive mills have been gradually replaced by horizontal centrifuges powered by electricity. Some of these old millstones are now decorating squares and gardens as a symbol for the lost tradition. Furthermore, olives and leaves are nowadays separated inside the mill.

It is an interesting fact that the olive oil is the only food whose sensory (also called organoleptic) characteristics are regulated by law. As head of a panel test, I am in charge of a group of testers who went through hard training. Together we have to decide if a product is a virgin or an extra virgin olive oil, the highest quality categories for this product. You would probably be surprised if I told you that you can find fresh-cut grass, banana or almond flavours in some olive oils. Do not worry if you are not able to taste them, it is a question of time and practice.

Let me add a little anecdote about the organoleptic properties of olive oil and food pairing: When I moved from Antequera to Linares, Jaén, I was not used to Jaen's traditional olive variety. It took me quite some time to try any salad, since they use a huge amount of olive oil for the dressing. I really missed Antequera's traditional olive oil!

#### THE MOMENT OF HARVEST DETERMINES THE QUALITY

The harvesting date is what makes a good olive oil. For olives harvested at the beginning of October or November, a premium quality is expected; the oil is called *First Harvest Olive Oils*. I am sorry to admit that quality has not been always the producer's main goal. In fact, in the past, olive trees were harvested as late as possible to obtain larger amounts of olive oil. Quality commitment has been a long struggle among markets, producers and consumers.

Some consumers tell me that they do not like the bitterness of some olive oils but actually, oils with these properties have the best quality and are the healthiest because they have a high content of polyphenols, (substances with bioactive properties). I usually recommend both sour and hot, but I understand that, as Spanish people say, there is nothing written about taste.

The olive groves are typical for Andalusia's landscape, but the oil also influenced customs and traditions in this region. The olive oil production has to keep making progress, but at the same time it has to stay true to its traditional philosophy of health care, respect for the environment and rural development.

I would like to invite everyone to get to know the olive oil culture and its people. At least, you should try using more olive oil. I am sure you will like it and, above all, you will live a healthier life.



*Olive orchard in Andalucía, Spain.*



## Miller Breakfast

The *desayuno molinero* (miller breakfast) was a traditional meal in Andalusian oil mills. The millers working the last night shift used to eat it before the next shift came to work in the morning. Originally, it consisted of bread, oil and olives, all products that they had at hand in the olive mill. On holidays and important days, they added other local products, such as cod, oranges, tomatoes or pork.

Nowadays, this dish still exists and it is not only eaten by farmers but also by many different people in Andalusia instead of, for example, French toast or sweets. The most common products are bread with virgin or extra virgin olive oil served with tomatoes, cod and dry-cured Spanish ham.

The *desayuno molinero* can be compared to the typical English breakfast, but it is healthier because of the Mediterranean products.







*“Table olive, try one, and if it is good, a dozen.”*

Spanish proverb





ESTHER CAMPOS

PRODUCER OF TABLE OLIVES

## SPAIN: TABLE OLIVES

My name is Esther and I was born and grew up in Úbeda, one of the most beautiful and famous tourist towns in the province of Jaén, which has been linked to the olive culture for hundreds of years. My parents and grandparents were olive producers, so most of my childhood memories are full of olive groves, olive oil and table olives.

### ARABIAN INFLUENCES ON SPANISH FOOD CULTURE

Most of the harvested olives are used for making olive oil, but in Andalusia there is also a long tradition of preparing olives as a snack. They use a little part of the harvest or even special varieties only grown for this purpose. You have to keep in mind that olives need a ripening process and a kind of fermentation, before they are ready for consumption. Although the table olive industry is mainly located in the area surrounding the cities of Seville and Córdoba, families in all the Andalusian towns and villages usually prepare homemade table olives for their own consumption. I do not know the origin of this tradition, but I can imagine that our Arabian past has influenced it. I have never been to Morocco, but I have heard that the people there eat olives all day long: for breakfast, for lunch, for dinner etc.

I have always loved table olives and I am very proud to have passed on this tradition to my children. Sometimes I have to stop them from eating too many, what makes me think of the original Pringles slogan "Once you pop, you can't stop". Children are, in fact, big fans of olives, which are usually strongly salted. They must have something addictive in them.

My mother and my grandmother were experts at preparing homemade table olives. Apart from the variety, the cure makes the difference. It gives them their characteristic saltiness, tender texture and flavour. There are many different methods for olive fermentation, e.g. brine curing, water curing or lye curing. In the past, it was very typical to have the olive containers during the curing process inside

the house. Currently, this tradition is only found in households of older generations, as the majority of young people is no longer interested in it.

From what I have learned at home, I can say that both green olives (unripe) and black olives (ripe) can be used for preparing snacks. The taste is quite different, as, in my opinion, green olives have a fresher flavour. Black olives are better for cooking, but it always depends on your preferences and taste which are very subjective.

I like using table olives for many recipes, for example, in salads and pasta, but my favourite use is as a snack with an extra cold beer. When you order your beverages at any bar in Jaén, it is very common to get table olives for free (industrial or homemade products). Likewise, some restaurants serve often table olives, while you are waiting for the meal. Be careful not to eat too many or you will feel full before even starting your meal!

#### A VITAL PART OF SPANISH RESTAURANT CULTURE

I cannot imagine meeting family and friends without olives. In my family, table olives are never missing at our celebrations and we are a huge family! Sometimes I argue with my father, as he always tries to lose weight with the help of many diets, but he eats so many table olives, which are very healthy, of course, that if he wants to be thinner he needs to start eating less of them.

In recent years, nutritional and safety aspects of table olive consumption were often discussed. As for me, I would like to find new, innovative procedures using less salt but keeping the standard of fermentation and quality high so that the product does not lose its “ready-to-eat” character and is good for your health and for social meetings.







## Crushed Olives

### INGREDIENTS FOR PREPARING A CONTAINER OF 5 l

**3 kg** fresh green olives  
**1,5 kg** coarse-grained or kosher salt  
**200 g** thyme  
**8** bay leaves  
**1** orange peel  
**2** unpeeled heads of garlic  
**2** sprigs of fennel  
 Water

### EQUIPMENT

a 5-litre-clay pot for preparation and storage  
  
 a wooden mortar or a rolling pin

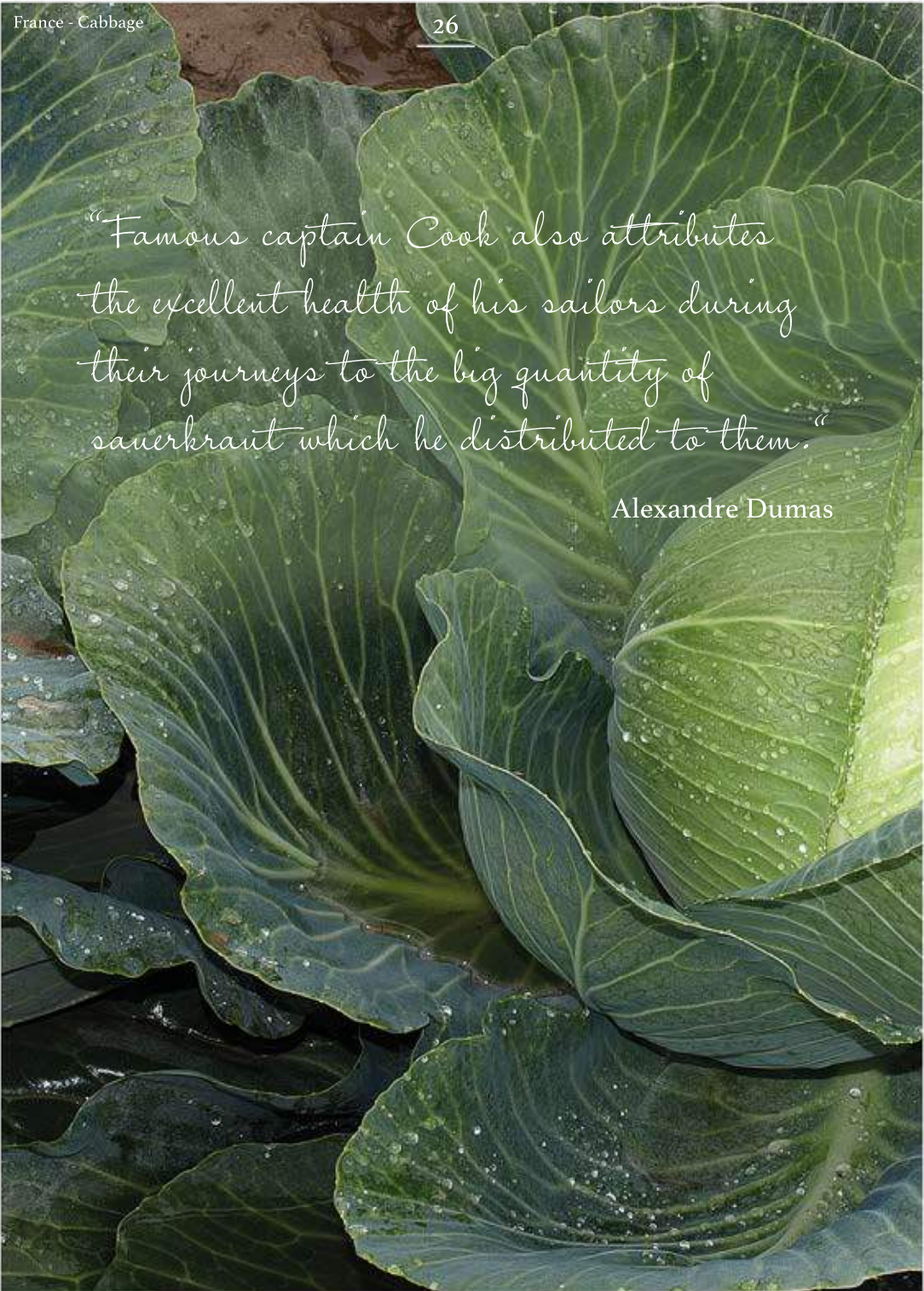
### PREPARATION

1. Wash and sort the olives in plastic trays or any other container. The sizes of the olives should be similar, so if you have many different sizes, separate them into different stacks.
2. Crush the olives with the wooden mallet. Give them a light smack, but keep them as intact as possible. You should take care not to damage the stone.
3. Put the washed olives into a 5-litre-clay pot and cover them with water and 100 g of coarse salt (brine). Make sure that the olives are fully covered by the liquid. Cover the container and store at room temperature for one day. The next day, wash the olives and repeat the procedure of covering with brine and washing for 10-12 days, until olives become sweet.
4. Add thyme, bay leaves, orange peel, garlic and fennel to the sweet olives covered by new brine. Cover the container and store at room temperature for a couple of days. After that, they will be ready to eat. Until their consumption, store them in the same jar as for the preparation and do not remove the final added dressing.



*“Famous captain Cook also attributes the excellent health of his sailors during their journeys to the big quantity of sauerkraut which he distributed to them.”*

Alexandre Dumas







**JEAN-MICHEL ADES**

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CABBAGE PRODUCER

## FRANCE: CABBAGE

Historically, the Chinese seemed to be the first ones to preserve cabbage with the help of salt and vinegar. Fermented cabbage became the basic food of the craftsmen of the Great Wall of China. These workers were isolated in the mountains, but this food ensured their survival. According to some sources, the Mongols and Tatars found this special food at the Great Wall and when they invaded and conquered Europe, they brought different kinds of cabbage with them. Other sources state that great explorers like Marco Polo needed the sauerkraut to prevent sailors from scurvy. They used brine-fermented cabbage and with time, they gradually improved this technique of preservation.

In the 16th century, the Germans invented the saltfermentation and the sauerkraut became a traditional dish in Alsace. The Alsatian language named it *sauerkraut*, a literal translation from the word *Sürkrüt* - *sür* (sour) and *Krüt* (grass).

### SAUERKRAUT JUICE IS USED IN BIOGAS PRODUCTION

Nowadays, the French region Alsace produces 25,000 to 28,000 tons of sauerkraut per year, which equals approximately 70 percent of the total national sauerkraut production in France. In the Bas-Rhin department, the cabbage culture is primarily located around the city of Krautergersheim. 25 percent of the French sauerkraut production originates in this little village and this number explains its nickname: the “capital of the Sauerkraut”. The sauerkraut juice is collected during the process and is later on used in the biogas production.

Three hints to identify good raw sauerkraut: its typical strong smell, long strands and the white, light yellow colour. Over the last hundred years, the production of sauerkraut has been extended to several other regions in France, such as Champagne, Pays de la Loire and

Nord-Pas-de-Calais. Cabbage and sauerkraut are known to be good for your health. They contain vitamins C, B, and K as well as probiotics. Furthermore, they are low in calories, but high in calcium and magnesium, and they are a very good source of dietary fibre, folate, iron, potassium, copper and manganese. When unpasteurized and uncooked, sauerkraut also contains living lactobacilli, beneficial microbes and is rich in enzymes. Fibre and probiotics improve digestion and help develop a healthy bowel flora as a protection against many diseases of the digestive system.

#### SAUERKRAUT IS AVAILABLE ALL YEAR ROUND

Sauerkraut can be found all year round: whether young, raw or cooked. However, it is important to know that the sauerkraut production starts each year on September 1 and takes 30 days. Due to the warm summer temperatures, the cabbage ripens quickly. After being collected, the vegetable is transported to the so-called choucrouteries, where it is cut into small, fine strips and then salted. Afterwards it is stored in tanks, so that these strips ferment more quickly. This procedure gives the sauerkraut a particularly soft flavour. This September cabbage harvest is known as "new sauerkraut".



*Traditional manufacturing process of sauerkraut.*







## Sauerkraut with Fish in Cream Sauce

### INGREDIENTS

2 kg sauerkraut  
 2 bacon rinds  
 2 onions  
 2 crushed cloves of garlic  
 1/2 teaspoon cumin  
 1/2 teaspoon cilantro  
 4 cloves  
 12 juniper berries  
 2 bay leaves  
 1 sprig of thyme  
 0.5 l white wine (Riesling)  
 2 tablespoons duck fat  
 3 shallots  
 1.5 kg fish fillet

### GRAVY

0.5 l white wine (Riesling)  
 400 g butter  
 200 ml cream

### PREPARATION

1. Sauté 1 of the onions with 2 teaspoons of duck fat.
2. Add bacon rinds, sauerkraut, different spices, salt, pepper and half of the white wine. Cover it with a lid and cook it in the oven at a low heat for 1.5 hours.
3. In the meantime, prepare the gravy: add diced shallots to the wine and wait until the alcohol is almost evaporated. Then add cream and continue to cook, stirring occasionally, until the sauce thickens.
4. Cook the fish filets in the vapour.
5. To serve, cover the sauerkraut with the fish. Spoon the sauce around the fish and garnish with sea scallops and crayfish.



*“Traditional durum wheat products, a distinctive quality.”*

Hugo De Vries







JOEL ABECASSIS

SCIENTIFIC EXPERT OF THE FRENCH NATIONAL  
DURUM WHEAT PLATFORM

## FRANCE: DURUM WHEAT

I am Joel Abecassis, researcher at Inra, France, and my passion is cereal research. My main focus has been on durum wheat as a unique cereal especially in the Mediterranean area.

France is the largest cereal producer in Europe. For durum wheat this amounts to 2 million tons per year, produced by 22,000 agricultural farms. There are two transformation processes: for the first one 200 FTE (full-time employees) are employed in five semolina mills and for the second one we have seven large enterprises which produce pasta and four which produce couscous, with over 1,300 employees. There exist also many SMEs for dealing with durum wheat products.

### DURUM'S UNIQUE FEATURES ALLOW TO DEVELOP A LARGE DIVERSITY OF FOOD PRODUCTS

Numerous traditional SMEs work in different stages of the durum wheat chain as producers, manufacturers, millers and cooperatives. Most of them focus on the local market especially for fresh pasta, pizza and bread. We have met about 20 SMEs during a workshop fully dedicated to traditional durum wheat products. More than 50 percent of them have an annual turnover of 50,000 to 500,000 € and a focus on local and regional markets.

Durum wheat is one of the pillars of the Mediterranean diet. Let me remind you that more than 60 percent of the world production of Durum wheat are consumed in the Mediterranean region. Therefore, artisanal and traditional production methods are widely used for durum wheat based products, even if we can observe that globally and industrially produced durum wheat products are experiencing an increase. However, the specific features of durum wheat (glassy texture, amber colour, high protein levels, etc.) allow several transformation processes that lead to a wide range of food products, such as pasta, couscous, bulgur, frekeh, a variety of breads and pastries like *Pane d'Altamura* and *Keshra* or *Khobz-el-dar*. This gives

SMEs the chance to develop special products. Furthermore, the well-known Medi-terranean Diet and its popularity provide SMEs with tools to market their products. Citizens and entrepreneurs in the Mediterranean region are well aware of the uniqueness of this cultural heritage and the secure jobs that it creates.

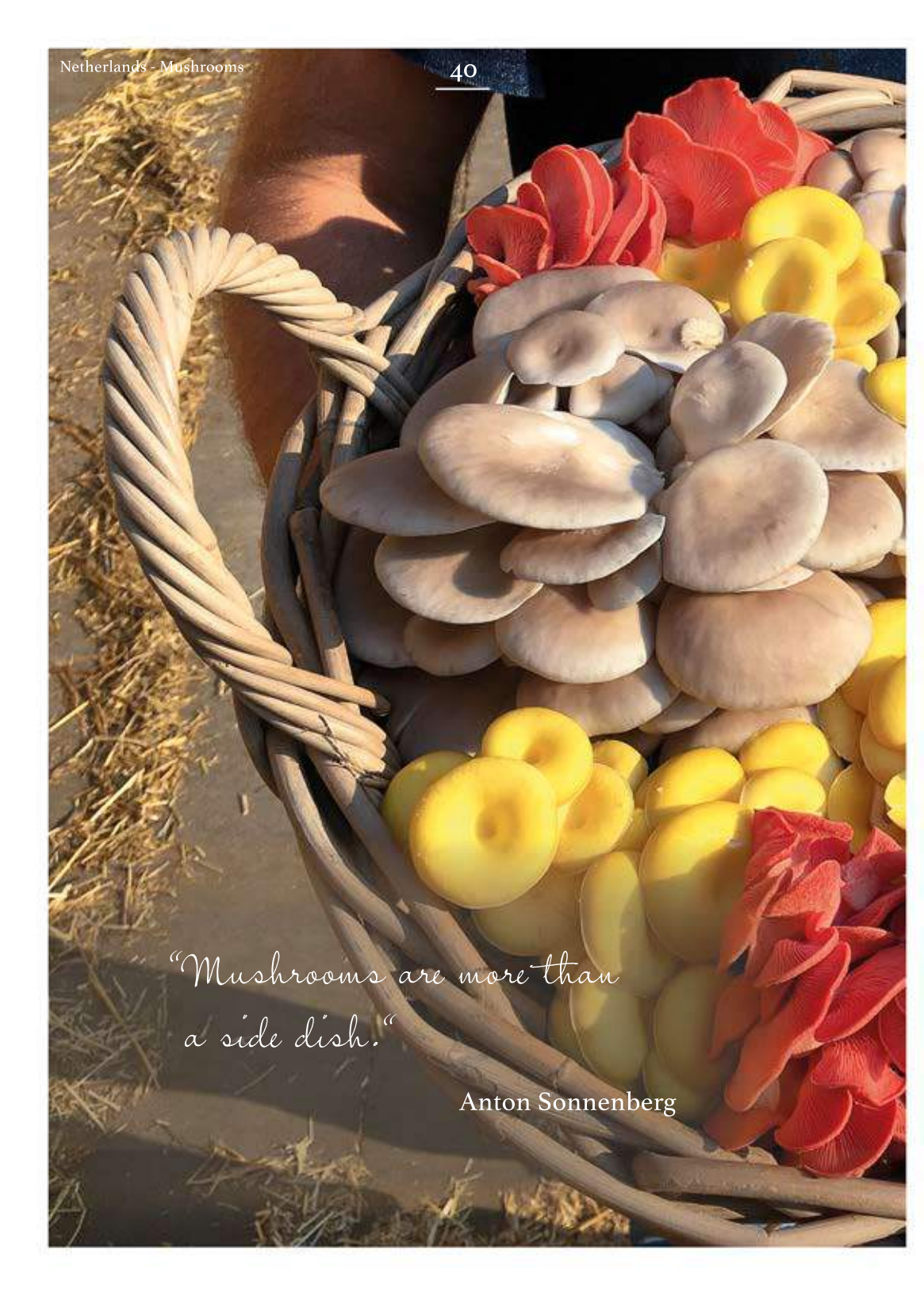
We have seen an excellent response of Durum Wheat SMEs to the invitations for workshops organized in the European project Trafoon. Over 50 percent of them have indicated to be willing to innovate. New food products based on durum wheat rank among their biggest interests. However, also innovations in marketing have their full attention.

#### THE ROLE OF SCIENCE FOR PRODUCT INNOVATIONS

Durum wheat grains with an “optimized protein potential” as well as “development of quality indicators of durum wheat grains” and “Innovative crop management techniques” have been mentioned by the SMEs as subjects of interest for innovations. In these cases, research centres should be willing to help with building an appropriate science base and transfer the knowledge to the SMEs in order to speed up innovation process. Our lab has been involved in setting up a durum wheat project in which one of the main goals is the optimized protein potential, considering agronomical factors, soil and climate changes, flexibility in processing and final perception.

In the past, we have also contributed to the development of a new product, named *Ebly*, which can be bought today in the supermarket. Very recently, we have co-developed the first French baguette based on durum wheat. For this product, myself and numerous other colleagues and enterprises shared our experience. This project convinced me that if we have innovative SMEs in the sector of the traditional durum wheat production, we have numerous options to develop new concepts and remain competitive.



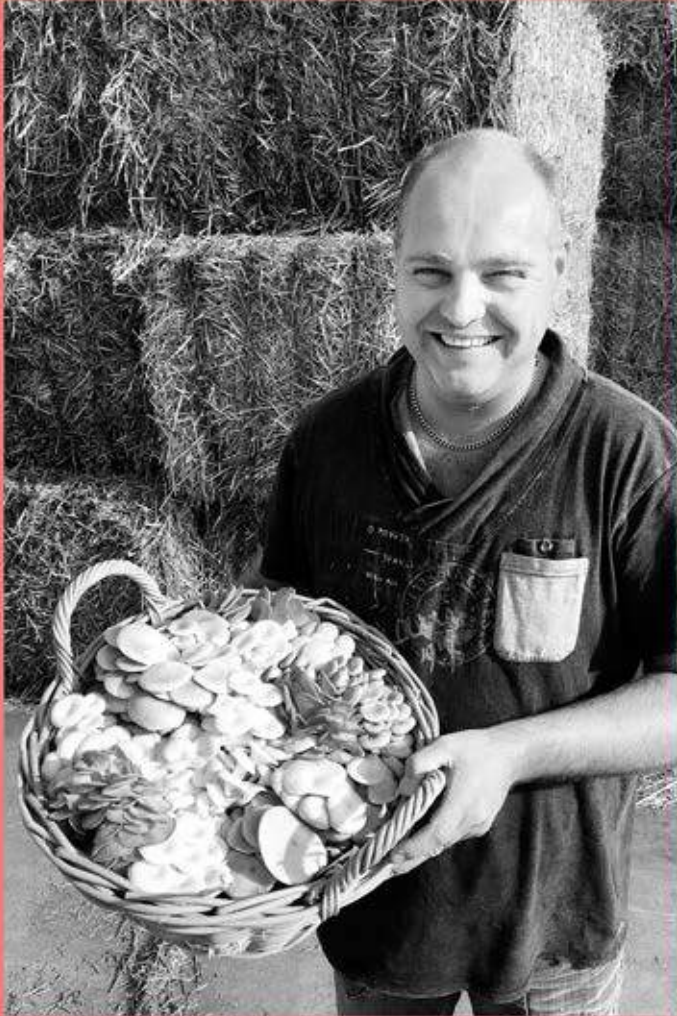


*“Mushrooms are more than  
a side dish.”*

Anton Sonnenberg







**JOHN VERBRUGGEN**


**MUSHROOM GROWER**

## NETHERLANDS: MUSHROOMS

In my opinion, edible fungi are one of the most fascinating organisms on this planet. They are a short-cycle crop and all the different stages can be closely followed. After the inoculation of the substrate, I can already see growth after only one day and after a few weeks, I have the fungus. By using waste from other agricultural crops, I make new food. Mushrooms are quite sensitive to their environment. Therefore, the environment should be kept clean to avoid fruit bodies from being attacked by unwanted fungi and also provide them with the right amount of moisture, temperature and sunlight to grow.

I cultivate three different types of oyster mushrooms belonging to the genus *Pleurotus*: grey (*Pleurotus ostreatus*), pink (*Pleurotus djamor*) and yellow oyster mushrooms (*Pleurotus citrinopileatus*). Oyster mushrooms can grow easier compared to button mushrooms, and there are more varieties available. The different oyster mushroom species can be grown on a variety of organic matter, which offers the opportunity to switch to other sources if the present substrate (wheat straw) is less available or becomes too expensive.

Oyster mushrooms are rich in dietary fibres, minerals, B vitamins, and pro-vitamin D. Especially elderly people, increasing in numbers in western countries, have a low efficiency of vitamin D production. In some countries vitamin D enriched mushrooms are already available and other countries will follow soon. Especially for vegetarians, mushrooms are a good alternative for the present source of vitamin D, such as fish fat. Although mushrooms are very delicious, they are underestimated as food. They will never be a staple food like potatoes or rice, but they add nutritional value to a meal because of their unique mixture of vitamins, minerals and dietary fibres. In countries like China, people eat far more mushrooms than we do in the Netherlands and I see good growth opportunities for the market of edible fungi. We need much more cooperation between companies in the Netherlands (and Europe) to create more awareness among consumers for this healthy product.



*“Daily fresh bread is what we aim for and what we are proud of! We rather throw bread away than sell it the next day.”*

Petra Kuiper





PETRA KUIPER

BREAD EXPERT

## NETHERLANDS: BREAD

The Dutch mostly eat bread for breakfast and/or for lunch. It is quite common to take a lunchbox with sandwiches to school or work. Nowadays, Dutch people consume an average of 50 kg of bread per year, equivalent to approximately four slices of bread per day. Therefore, the bread shelves are packed with all kinds of bread, yet there is only one type of bread that really belongs to the Dutch culture: the sandwich bread or tin loaf. Typical Dutch toppings are peanut butter, sprinkles and, of course, Dutch cheese. We buy most of our bread at the supermarket (about 75 percent) or at bakeries (about 14 percent), but we also like to eat a sandwich “on the go” (buying it at train stations, gas stations, small shops/bakeries etc.). Typical regional breads are for example Frisian rye bread, sausage rolls from Brabant and Zeeland bolus.

### THE DUTCH STORY OF BREAD

In the Netherlands, wheat is the most important grain for the production of bread. Already at the beginning of the 19<sup>th</sup> century, it was quite common to use a combination of rye and wheat flour for making bread. Nowadays, typical rye products, such as rye bread from Brabant, Friesland or Groningen, still exist, but rye flour is not anymore the first choice for bread. Cakes, such as gingerbread still often contain a small percentage of rye flour for extra taste. After World War II, things started to change: instead of using a combination of rye and wheat flour, people started to bake bread only made of wheat flour. One reason for this change was the Swedish white bread that was given to the people in Western Netherlands during the Dutch famine of 1944 - 45. In coordinated air drops in April/May 1945, the Swedish white bread was thrown over the country by the American and British Air Force in the so-called operation Manna. The bread was baked in the Netherlands with flour that was shipped in by three large ships of the Swedish Red Cross. During the years of war, there was hardly any money to make bread. Dutch bakers were forced to bake so-called *government bread* with special home-grown wheat and

alternative ingredients, such as rye flour, potato flour and legume flour. They started to bake this nutritious bread in 1916 during World War I, and continued baking it during most of World War II.

In the years after 1950/60 a new era started: more and more luxurious breads and bread products were made, such as white breads, such as cream and milk bread. Bread became lighter and more airy and also marketing started to play a role. In the 1970s, the first bread brand named King Corn appeared on the market (it was actually packed Swedish white bread). The 1980s were known for an increasing diversity on the bread shelves. The use of multiple grains (corn, multigrain bread) started, seeds and nuts were added and also bread with malt colouring became popular. The current trend is strongly influenced by health and lifestyle aspects. Therefore, pure, artisanal breads as well as the use of local grains and older wheat varieties, such as spelt, emmer and einkorn, are very popular. Furthermore, we have noted an increase in the use of yeast as a leavening product.

*Wheat rye sourdough bread.*



*Fries rye bread with  
cherry jam.*



*Muesli bun with cheese.*









# Whole Grain Spelt

## INGREDIENTS FOR 15 BREADS OF 600 g

5 kg whole grain spelt  
flour  
750 g spelt sourdough  
90 g salt  
50 g apple syrup  
50 g olive oil  
25 g yeast  
25 g panatura (natural  
starter dough)  
2,9 kg water  
500 g extra water

## PREPARATION

1. Make a nice dough out of the raw materials.
2. Then put the dough in a large oiled tin.
3. Let it rest for 30 minutes and then carefully fold the dough.
4. Weigh in pieces of 600 grams. Fold the dough into a rectangular loaf (pointed at both sides).
5. Let the dough rest and rise for another 45 minutes. Form the breads.
6. Let it rise for another 85 minutes. Bake with steam at 230°C for approx. 40 minutes.



*“A pea has to struggle and a lemon  
bean is a fragile lady.”*

Dutch proverb





**THE SMAK FAMILY: JAAP, MARRY AND ERIK**

**PULSES GROWERS**

## NETHERLANDS: PULSES

Hello, we are the Smak family (Jaap, Marry and our son Erik). Our family has lived for many generations in the province of North Holland. They bought the farm where we currently live around 1900. At that time, there was mostly small-scale mixed farming in the region (cattle, flower bulbs, meadows, pulses and vegetables). In 1978, we decided to specialize in the cultivation of agricultural products. We still grow onions for seed production and flower bulbs (tulips), but our main focus is on dry beans and peas, what makes us one of the last farmers in the Netherlands with a focus on these products.

### THE BENEFITS OF BEAN DIVERSITY

Jaap Smak's first memories of eating pulses go back to a particular day of the week: Monday – washing day. As back then doing laundry was hard work, food for these days needed to be easy to prepare. On Sunday evening, the beans or peas were soaked and on Monday they were put on the stove. They did not need any attention and they ate them just like that. Jaap, Marry and Erik mentioned that their favourite pea is the *grauwe erwt* (a kind of maple pea) and they gave us an absolute insider tip: the best way to serve it is with fried bacon (do not use streaky bacon!), pickled onions, gerkhin and piccalilli. This special kind of maple pea is so popular because of its full-flavoured taste. It tastes much better than the so-called *kapucijners* (dun peas, brown marrowfat peas). *Citroenboon* (a yellow bean) is their favourite dry bean, closely followed by the white *krombek*. However, the cultivation of *citroenboon* is a little more difficult, as it is more prone to diseases. In this context, Marry Smak mentioned that in Dutch the *citroenboon* is known as a *juffertjesboon* (a *fragile lady* bean). Another typical Dutch recipe with peas is called *snert*. To prepare *snert*, Marry Smak uses instead of the traditional split peas marrowfat peas because this kind of peas does not need soaking and you do not have to remove the skin. She cooks the marrowfat peas and adds then small pieces of meat and vegetables (leek, bulb celery). Finally, the soup is served with smoked sausage.

In the old days, the cultivation of dry beans and peas was a laborious job, as all activities had to be done by hand. In the case of dry beans, this meant sowing, weeding and also harvesting on your knees, picking plants, placing them on rows (*waaltje*) on the land for one to two days and subsequently putting them on wooden tripods for drying.

#### PEAS AND DRY BEANS NEED DIFFERENT WEATHER CONDITIONS FOR HIGH CROP YIELDS

The peas ready for harvesting were mowed with a scythe. Nowadays, agricultural machines are used for sowing and harvesting both crops, which makes the cultivation much more efficient. Compared to the past, the process of harvesting is less laborious, however, the harvested plants still need to be placed by hand on wooden frames. Furthermore, the seeds are sorted by hand (in Dutch this step is called *bonen lezen*). Friends and family always help the Smak family during summer and autumn. According to Erik they currently sow the peas mostly in March/April, however even February is possible if the weather conditions are good. Dry beans are not sown until May 15, after the Ice Saints' Days. Experience showed Jaap and Erik that peas grow the best crop when the weather is less favourable during early plant development (*een erwt moet strijen*: a pea has to struggle), whereas dry beans need to have favourable weather conditions during early plant growth for a good harvest.

The climate in North Holland is very good for growing pulses. It is mild and not too hot, which keeps the product tender during maturing. Jaap added: "*If the year is good for beans, it is less favourable for peas and vice versa. This gives us stability.*"

As nowadays there is no big industry for cultivating dry beans and peas in the Netherlands, the Smak family has to rely on their own seed production. They need to select all the different types of dry beans (*kievitsboon*, *woudboon* and the dry bean varieties typical for North Holland *citroenboon* and *witte krombek*) and peas (*grauwe erwt* and *schokkers*) they want to grow. According to the Smak family, dry beans and peas from breeding companies do not show equally good results

as their own selected material, as they suffer more often from diseases and pests. Marry stated: *“We have a lot of customers who buy our beans and peas. Most of them come directly to our shop, but we also ship our products to customers from other areas. And they keep coming back, which makes us feel very proud of our products. Last year, pulses appeared in the Dutch dietary guidelines and we have noted that more people buy pulses.”*

*In the past sowing was done by hands. With the use of machinery the cultivation process became more efficient.*

*Harvested beans are stuck by hand on wooden tripods for drying.*









## Maple Peas with Bacon and Pickles

### INGREDIENTS FOR 4 PEOPLE

**400 g** maple peas (*grauwe erwten*)

**2 l** water

**250 g** cubed bacon

### AS A SIDE DISH

Small pickled onions

Gherkins

Piccalilli

### PREPARATION

1. Wash the peas, cover them with water and let them soak overnight.
2. The following day, add some salt and cook the peas in the same water for 1 – 1.5 hours.
3. In the meantime, fry the bacon until it is crispy.
4. Drain the peas and serve with the bacon, pickled onions, gherkins and piccalilli.



*“Oat: older than ‘traditional’.”*

Luud Gilissen



LUUD GILISSEN  
GRAIN RESEARCHER

## NETHERLANDS: OAT

My name is Luud Gilissen. I was born in 1946, right after the Second World War, as the oldest son of eight children, five boys and three girls. When I was eleven years old, the family was completed: it was the period of the *baby boom*. As young children, we had for breakfast the choice between a bowl of oat porridge or wheat porridge. My daily choice was oat porridge. And now, 70 years later, oat porridge is still my favourite choice for breakfast, and, as an active senior scientist in grain research, I know why I should continue my tradition.

### OAT FOR HEALTH

Oats are a whole grain food product. In these products the bran and the germ remain. Especially the bran fraction is a rich source of health-promoting compounds, such as food fibres, minerals and protein. Several large-scale studies followed hundreds of thousands of people for about 15 years and longer monitoring their diets and health outcomes. Whole grains boost bone mineral density, lower blood pressure, promote healthy gut flora and reduce the risk of diabetes. Among all the whole grain products, oats seem to be special. They contain a specific soluble food fibre called beta-glucan. It has been proven scientifically that it helps to lower blood cholesterol. The more oats, the better is the effect of helping to protect against heart disease. Several claims about beta-glucan and oats regarding these health benefits have been approved e.g. by the European Food Safety Authority (EFSA) and US Food and Drug Administration (FDA). Is my daily oat consumption the reason why I still don't need to take any medication?

In 2004, Wageningen University and Research acquired a big grant from the Dutch government to establish the Coeliac Disease Consortium together with several Dutch University Medical Centres and food, pharmaceutical and diagnostic companies. Coeliac disease is an autoimmune disease triggered by the consumption of gluten from wheat, barley and rye, resulting in chronic inflammation of the

small intestine. About one to two percent of the population suffers from this disease. The only remedy is a strict life-long gluten-free diet. The main goal of the Consortium is research for better prognosis and diagnosis of the disease, for improved prevention and treatment, and for the development of coeliac-safe food products. Wageningen UR concentrated primarily on the latter issue.

#### OAT IS GLUTEN FREE

Despite a low amount of avenins, proteins resembling gluten, the consumption of oats by coeliac patients, mainly in Scandinavian countries, did not show any harmful effects. Over time, more and more scientific evidence for the safety of oats for coeliac patients could be found in international publications, as a result of which the European Commission in 2009 and the US Food and Drug Administration in 2013 presented the regulation that oat and derived foods with a gluten contamination level below 20 mg/kg are allowed to be labelled and sold as gluten-free. In general, gluten-free diets are high in fat and salt, and low in food fibre. With the introduction of oat products, which contain a high amount of fibre, the health value of the gluten-free diet increased significantly. However, recently, doubts were raised due to the fact that coeliac-specific monoclonal antibody-based tests showed some positive responses for a few oat varieties.

Diana Londono, a PhD student in our Consortium at Wageningen UR, explained these responses to avenins by showing that the positive responses observed from the tests were most likely artefactual, because toxic fragments known from gluten of wheat, barley and rye (cereal varieties which contain gluten) could not be found. A recent Scandinavian research on the long-term consumption of oats in adult coeliac patients showed that patients were able to safely consume a wide range of commercial oat products: high daily oat intake and a long duration of oat intake are correlated with a better quality of the small intestine.

Diana is from Colombia. In South America (in contrast to Northern Hemisphere continents) the importance of oat is growing. Farmers

grow this crop because it fits perfectly into crop rotation systems in the no-till cultivation practice. Diana's father is a lover of *frescavena*, a very popular, traditional South-American oat beverage.

#### FROM TRADITION TO INNOVATION

Whatever the reasons may be, many younger people choose alternative foods. In this diet change, the consumption of oats seems to fit very well. Pascale Bonnier and Mathijs Kok, a young couple in their mid-twenties, had their first date during an oat breakfast. They agreed to create every day a recipe based on oats and to publish these (with beautiful pictures) on the social media platform *Instagram*. Their kitchen became a real *Oat Lab*. Within a short time, they had many thousands of followers. A publishing company became aware of **them** and launched in 2015 a beautiful book, called *Haverhoutje*, with 70 oat recipes for every meal during the day. This book is now a highly appreciated source of inspiration for a rapidly growing population of oat lovers.

This story shows the power of communication, and the enthusiasm of young individuals to innovate, starting from a very old, traditional, almost forgotten and neglected healthy food (like oats). Times and diets are changing.

*In the field: PhD student  
Diana Londono from  
Colombia.*







*“Ancient grains bring the romance of rustic old worlds into our kitchens.”*

Catherine Saxelby





## GERMANY: ANCIENT GRAINS

The grains used nowadays are ancient grains that can be, as in the case of einkorn, up to 10,000 years old. Originally, they came from Asia, but trade brought these grains to Europe and over time they got mixed with other wild grasses. This happened, for example, to the tasty emmer and the rich spelt. These old varieties of cereal have not changed much until today. Generally spoken, einkorn, emmer and spelt are easy to cultivate, as they have adapted over the years to the local conditions. Ancient varieties of grain are becoming increasingly popular in the traditional bakery trade in Germany. However, the cultivation of emmer and einkorn started again only a few years ago, whereas spelt has been grown for 20 years. Nowadays, South Germany, the federal state of Baden-Württemberg in particular, is the main production area of spelt. The three wheat varieties spelt, emmer and einkorn impress especially with their characteristic taste, excellent baking qualities and health benefits such as the high mineral and protein content.

### CHARACTERISTICS OF ANCIENT GRAINS FOR BAKING

**Emmer:** Baking goods made with emmer taste strong and spicy. Therefore, the grain is particularly suitable for savoury yeast dough and sourdough and can be used for bread and bread rolls.

**Einkorn:** With its mild aroma and its natural yellow colour, einkorn tastes especially good in pastry goods (cakes etc.) and in sourdough.

**Spelt:** This grain is characterised by its strong, nutty taste. It is particularly good for yeast-based pastry products, batter and bread.





# Einkorn Pastry

## INGREDIENTS FOR THE DOUGH

**880 g** fine-ground einkorn whole grains  
**575 g** sugar  
**40 g** baking powder  
**15 g** salt  
**660 g** whole eggs  
**50 g** edible oil  
**5 g** vanilla  
**5 g** lemon zest  
**390 g** basic cream

## BASIC CREAM

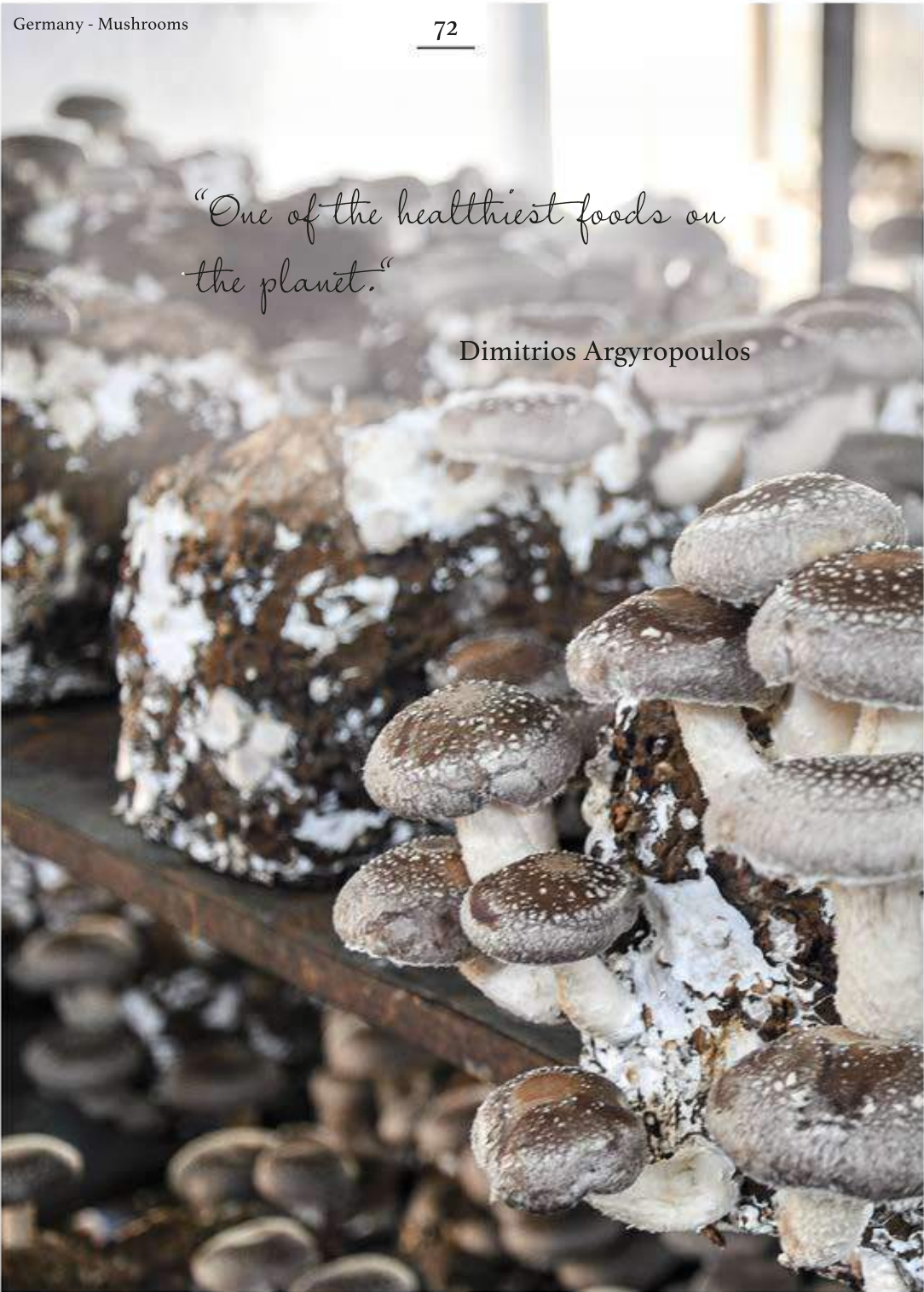
**350 g** milk  
**40 g** fine-ground einkorn whole grains

## PREPARATION

1. For the basic cream: bring the milk to the boil and stir in the fine-ground einkorn.
2. Mix all the ingredients to a dough (no beating).
3. The basic recipe can be varied through different spices and aromas.
4. Put the dough on a greased baking sheet (60 x 40 cm).
5. Bake in the oven for approx. 40 minutes at 190°C.

*“One of the healthiest foods on  
the planet.”*

Dimitrios Argyropoulos









**DAMIAN JUCHA**  

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**MUSHROOM GROWER**

## GERMANY: MUSHROOMS

My name is Damian Jucha and I cultivate exotic mushrooms. Our farm is located in Esslingen am Neckar, about fourteen kilometres southeast of Stuttgart in Southern Germany. TomDam Pilze GbR is a family business established in 2003, with the aim to grow and supply the local market with high-quality, fresh shiitake mushrooms (*Lentinula edodes*). Mushroom cultivation has always been a passion for us.

Shiitake is an edible mushroom, originally from East Asia, which is intensively cultivated and consumed in many Asian countries. In Europe, its cultivation only started to expand during the past decades. Nowadays, shiitake mushrooms are the second most popular and the third most widely cultivated edible mushroom in the world. There is no doubt that shiitake mushrooms are one of the healthiest foods on the planet. They are low in sodium, sugar and fat, a great source of vitamin B and trace minerals. They are also rich in dietary fibres, including those associated with lowering the cholesterol level and cardiovascular support.

Shiitake mushrooms can be grown either on natural logs using various hardwoods (oak, beech, chestnut) or on synthetic logs containing mainly sawdust supplemented with wheat, millet, rye or maize bran. Our shiitake mushrooms are grown on certified organic wood substrates. The wood substrate is produced by heating sawdust to eliminate any unwanted moulds and bacteria. Then the sawdust is spawned and the mycelium grows on the substrate. The substrate bags are placed in our growing rooms and you can see the first results after some weeks. During the growing period, the temperature ought to be around 15°C, with a relative humidity of 85 percent and a CO<sub>2</sub> concentration of 900 ppm. We are currently producing around 1,000 kg of shiitake mushrooms per month, but we intend to increase our production capacity in the future. It is also important to us to make use of the spent shiitake substrate. After harvesting, the spent substrate is naturally dried and then used as a fuel source for climate

control in growing rooms. Shiitake is a very aromatic mushroom, with a flavour reminiscent of garlic. It tastes especially good in combination with rice, pasta, meat dishes, omelettes and soups, and it is ideal for grilling.

Apart from shiitake, we also grow a small quantity of king oyster mushrooms (*Pleurotus eryngii*). This kind of mushroom grows best at 15°C, with 90 percent relative humidity, a CO<sub>2</sub> concentration of 900 ppm and it requires some light (12 h/day, 500-1,000 lux). *Kräuterseitling* (in German) is a delicious mushroom species which has raw only little flavour or aroma, but when cooked, it develops typical mushroom umami flavours. The king oyster mushroom stands out due to its delicate aroma and its porcini-like consistency. The flesh remains firm after cooking and it can be grilled, used in soups, in meat dishes or in vegetarian meals.

According to season, we bring a great variety of fresh wild mushrooms, like *Chanterelles*, *Porcinis*, and *Morels*, to local markets. Our wild mushrooms are collected in a sustainable way from different forests in Europe and they are perfectly suitable for the preparation of several traditional dishes.

*Shiitake mushrooms are low in sodium, sugar and fat and contain great amounts of B vitamins and trace minerals.*





*Shiitake growing facility (in the background).*





## Shiitake Risotto

### INGREDIENTS

4 cups vegetable or  
 chicken broth  
 2 tablespoons butter  
 1/2 cup finely chopped  
 onion  
 1 teaspoon minced garlic  
 1 cup uncooked Arborio  
 rice  
 1/2 cup dry white wine  
 4 cups thinly sliced  
 shiitake mushroom caps  
 2 teaspoons chopped fresh  
 thyme  
 Salt and freshly ground  
 black pepper  
 6 tablespoons freshly  
 grated Parmigiano-  
 Reggiano cheese

### PREPARATION

1. Bring broth in a medium saucepan to a simmer; keep warm over low heat.
2. Melt butter in a large pot over medium heat. Add onion and cook for 2 minutes. Add garlic and cook for 30 seconds while constantly stirring. Add mushrooms; sauté for 5 minutes or until tender. Add rice and cook for 1 minute while constantly stirring.
3. Add wine; cook for 2 minutes or until liquid is absorbed while stirring frequently. Stir in 1/2 cup of broth; cook for 2 minutes or until liquid is absorbed while constantly stirring. Add remaining broth, 1/2 cup at a time, while constantly stirring. Wait until each portion of broth is absorbed before adding the next (should take about 20 minutes). The rice should be just cooked and slightly chewy.
4. Stir in the Parmesan cheese and season with salt and pepper according to taste. Garnish with chopped fresh parsley or chives.

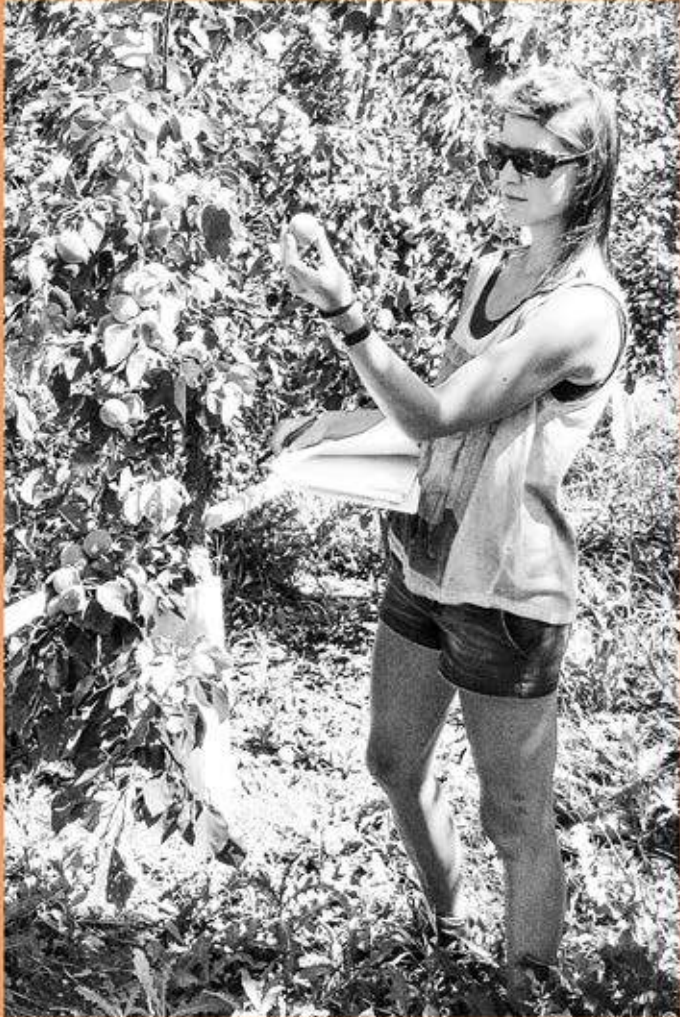




*"Apricot - the Prince  
of the Valais orchards."*

Swiss proverb





ROXANNE MONTI

RESIDENT OF THE VALAIS

## SWITZERLAND: APRICOT

I am Roxanne, a foreigner who has been living in Valais for the last five years. When I came to Valais, I immediately fell in love with the pure beauty of its landscape and as time went by, I got also enchanted by its tradition and food culture. For me, knowing the traditional food of the region was always the best way to understand local people and to find the key to their hearts.

The Canton of Valais in the heart of the Alps, is a region, where glaciers and rocks shaped the strong character of its people, but abundant sunshine and fertile soil in the Rhone valley gave them opportunity to grow exceptional fruits. All along the Rhone, from Sierre to Martigny, you can find one fruit in particular– the apricot, *the Prince of the Valais orchards*. Currently, it is cultivated on 700 ha, which equals an increase of 35 percent since 1997. The local production reaches 10,000 tons per year.

The history of cultivating apricots in the Swiss Alpine region of Valais started in the 18<sup>th</sup> and early 19<sup>th</sup> century. The first apricots were planted in Valais at the beginning of the 19<sup>th</sup> century. However, the expansion of the apricot culture started in 1890, when M. Sablier from Lyon introduced *Luizet*, an apricot variety that is well-adapted to the landscape and climate of Valais. *Luizet* is still today the main variety in the apricot orchards. Above all it is used for direct sale and secondly for distillate. The fruits are harvested overripe, sorted by hand, fermented and distilled. The famous *Abricotine du Valais* is produced with at least 90 percent *Luizet* and got the AOP ten years ago.

*Luizet* is undoubtedly still the consumers' favourite variety, even if this variety causes conservation problems and needs to be consumed shortly after harvesting. Therefore, in the late 80s, new varieties were introduced. It soon became clear that the new varieties offer, compared to *Luizet*, excellent taste, together with other advantages. They are less sensitive to weather and the fruits stay fresh longer, so they arrive in good condition at the market. The introduction of the

new varieties such as *Orangered*, *Goldrich*, *Bergarouge* and *Bergeron*, extended greatly the harvesting period.

I got the chance to meet Gérard, whose life is inseparably linked to the *Apricot du Valais*. Gérard was born in Nendaz, an important apricot producing village. He grew up under apricot trees and started harvesting apricots when he was a young boy. This passionate producer explains: *“Apricots are sensitive. You have to accept that the climate determines the quality of the fruits. Hail can destroy the entire harvest and heavy rain favours diseases and provokes fruit cracking. However, never hesitate to eat too much of this healthy fruit, that contains a high level of  $\beta$ -carotene, particularly in its skin. Apart from the fruits, the stones were very important in the past. We burned the stones, which have a high calorific value, for heating our houses as an alternative to wood. Furthermore, 50 years ago, when I was a child, we did not have any nuts, so during wintertime we opened the stones by knocking them with a hammer and consumed the fat, rich and savoury kernels as nuts.”*

There is a village for which the apricot plays a special role - Saxon. Here we can find the highest concentration of the country's apricot cultivation. It is also the location where every second year at the end of the harvest season people meet for three days to celebrate the Prince of the Valais orchards during the *Fête de l'Apricot*. In this village we can enjoy all the different traditional apricot products: marmalades, tartes, juices and of course the famous *eau de vie – Abricotine*.



*Apricot varieties.*



*Fête de l'Abricot  
celebrated in the  
village Saxon.*



*Flowering apricot  
trees in the Valais  
region.*





# Apricot and Lavender Panna Cotta

## INGREDIENTS FOR 4 PEOPLE

300 g apricot pulp  
4 quartered apricots (not too  
ripe)  
30 cl cream  
60 g fine sugar  
4 gelatine leaves  
1/2 spoon lavender flowers

## PREPARATION TIME

15 min preparation  
5 min cooking  
8 hours refrigeration

## PREPARATION

1. Boil the cream and remove from heat. Infuse lavender flowers for 15 min. Filter them.
2. Soften the gelatine in cold water.
3. Heat the cream with 50 g of sugar and add the softened gelatine. Mix constantly. Add apricot pulp. Split the mixture into 4 bowls and refrigerate for 8 hours.
4. Make a medium dark caramel with the remaining sugar, add the quartered apricots and cook for a few minutes.
5. Decorate the panna cotta and add few lavender flowers.

*"A wise to add salt, a cheapskate for  
vinegar, a squanderer for oil and a  
crazy person to mix them!"*

Italian proverb









MARIELLA CAPITONI

ITALIAN GRANDMOTHER ENJOYING COOKING

## ITALY: VEGETABLE SOUP

My name is Mariella and I was born in 1943 in Carrara, Tuscany. The *Ribollita soup* reminds me of my childhood, as my mother used to prepare it every week, whenever vegetables were available. The word *Ribollita* means reboiled in Italian and refers to a reheated leftover vegetable soup with stale bread. This soup has its origin in Tuscany. It was a traditional staple food in the Tuscan countryside and was often eaten for breakfast.

I was born during World War II, when food was scarce, and the years after the end of the war were also very poor. Therefore, simple and inexpensive food was very popular, in particular meals made from leftovers, such as stale bread or vegetables that could be grown in your own or your friends' garden. At that time, the *Ribollita soup* was the perfect dish. The main ingredients are leafy green vegetables and stale bread. Nevertheless, it is highly nutritious because it contains proteins (from legumes and bread), carbohydrates (from vegetables and bread), healthy fat (from olive oil) and many beneficial compounds that support your health (from vegetables). For this soup we use two different types of cabbage that are both good for your health: Savoy cabbage and black Tuscan kale. Black Tuscan kale is believed to help prevent cancer, due to the high amount of glucosinolates.

Nowadays, the soup is served in most restaurants in Tuscany and also in very expensive ones, but the recipe has not changed. It is an authentic traditional dish, that can be easily prepared at home. The recipe on the following pages should be seen as a guideline, as the soup was traditionally cooked with every vegetable available from the garden. It takes quite some time to prepare it, but you can spread the preparation over two days: the first day, you prepare the beans. The next day, you start with the vegetables. My daughters usually use a pressure cooker. This shortens the preparation time and the result is just as good! My nephews love the *Ribollita soup*.

The *Ribollita soup* has a very long tradition as a typical Tuscan peasant food. It goes back to the Middle Ages, when peasants prepared a soup that can be considered the precursor of *Ribollita*. At that time, rich people used to serve meat on unleavened bread, which was later given to their servants. They used to boil the bread together with herbs and vegetables (celery, carrots, cabbage). This soup was then re-heated and consumed for several days. Over the centuries, this recipe has been constantly refined and adjusted and this process resulted in what we nowadays call *Ribollita*. The current ingredient list dates back to the times of the discovery of America, when new vegetables (beans, potatoes and tomatoes) were brought to the rest of the world.

The soup was usually prepared by farmers' wives on Friday, when religion and poverty required to eat poor dishes and the only things left were bread, vegetables and legumes. Following the tradition back in the Middle Ages, the soup was re-heated over and over again the next days. Like many other traditional and popular recipes, *Ribollita* abandoned over time peasant kitchens and turned into a true symbol of the entire Italian cuisine.

This typical dish can also be found in artworks. Between 1584 and 1585, the famous Italian artist Annibale Carracci painted a portrait of a *Mangiafagioli* (a person who eats beans). This is one of his most famous portraits which can be seen in Rome. The first recipe book where this recipe appeared as a "Tuscany poor vegetable soup" was written by Pellegrino Artusi in 1891 (Pellegrino Artusi, *La Scienza in cucina e l'arte di mangiar bene*, the science of cooking and the art of eating well).



*The Ribollita soup is enjoyed best with family and friends.*



FLEUR DE LAVANDE  
LAVENDER FLOWER



## Ribollita Soup

### INGREDIENTS FOR 6 PEOPLE

**350 g** dried cannellini beans  
 or **700 g** fresh cannellini  
 beans (Do not use canned  
 beans!)  
**200 ml** extra virgin olive oil  
 1/2 onion  
 1 carrot  
 1 celery stalk  
 1 clove of garlic  
 2-3 sprigs of thyme  
 1 sprig of rosemary  
 1 teaspoon salt  
 1 potato  
 1/2 savoy cabbage (300 g)  
**300 g** black Tuscan kale  
**500 g** Swiss chard  
 2 fresh tomatoes  
 4-5 slices of whole wheat,  
 rustic, stale bread (Tuscany  
 bread)  
 Pepper

### PREPARATION

1. Put the soaked dried beans or the washed fresh beans in a pot with rosemary, garlic and olive oil (100 ml); stir it for 10 minutes, then add 4 cups of cold water. Turn the heat to medium-high and bring it to a gentle boil, then turn down the heat to the lowest level and cover the pot with a lid. Let everything simmer for 1-1.5 h, until the beans are cooked.

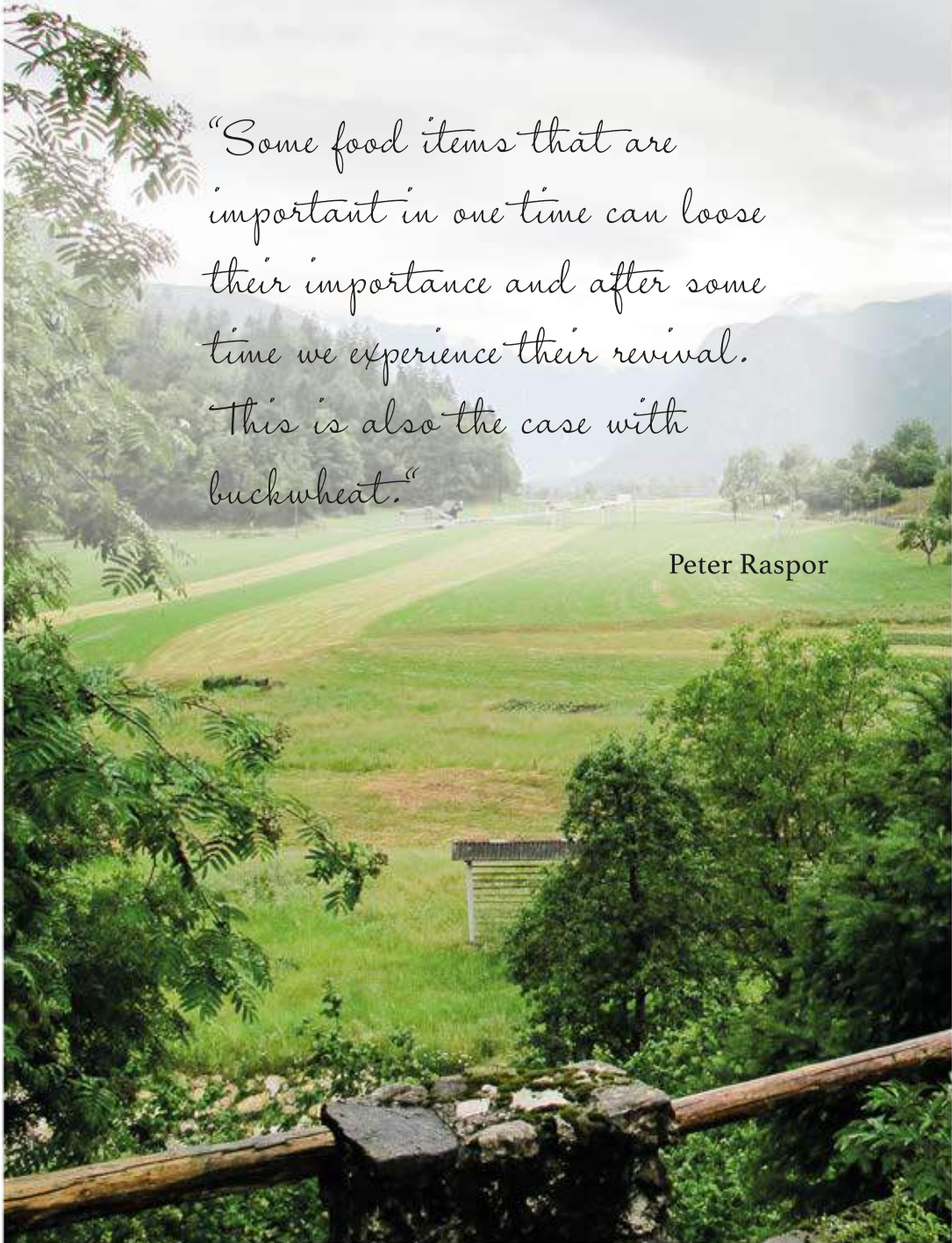
2. Meanwhile, chop the carrot, onion, and celery. Peel and dice the potato. Clean and cut the remaining vegetables into small cubes or pieces.

3. When the beans are cooked, add salt and pepper and purée about ¾ of the beans in a blender. Set aside the remaining whole beans. Prepare the “soffritto” in a large pot: heat up 100 ml olive oil, add the carrot, celery, and onion and fry for approx. 10 minutes on a medium heat until golden brown.

4. Stir often to avoid burning. Prepare the tomato paste by crushing the tomatoes. Add thyme leaves, the chopped fresh vegetables, the tomato paste, the bean purée including its water and 4 cups of water. Cover with a lid and cook at low heat for at least 1 hour. Finally, add the whole beans and the sliced bread. Cook for another 5 minutes and turn off the heat. Let the soup brew for at least a few hours, preferably overnight. Serve with freshly ground black pepper and drizzle with some olive oil. Add some Parmigiano Reggiano cheese according to taste.

*“Some food items that are important in one time can lose their importance and after some time we experience their revival. This is also the case with buckwheat.”*

Peter Raspor









PETER RASPOR

PROFESSOR AT THE UNIVERSITY OF LJUBLJANA

## SLOVENIA: BUCKWHEAT

In Slovenia, buckwheat was mentioned for the first time in 1426 in written sources under the name of *Gentiles*, which derives from the old German word *Heide*, which means pagan. Related records from the same period are known from the German Länder. Common buckwheat was domesticated and first cultivated in inland Southeast Asia and from there spread to Central Asia and Tibet, and then to the Middle East and Europe. It was brought to Europe from pagan places in the Indo-Asian world. By looking at the etymology of the term buckwheat (in each European language respectively) you can determine from which country in Europe the buckwheat was spread. There is for example an Arabic origin of the term in Spanish and French. You can find a Turkish origin in the languages of the Balkan nations and in Russian, buckwheat is called *гречка* (*grechka*) meaning of Greek, due to its introduction in the seventh century by the Byzantine Greeks, the same is the case in Ukrainian. Its Latin designation is *Fagopyrum esculentum*. The English word *buckwheat* is said to come from the Anglo-Saxon words *boc* (beech) and *whoet* (wheat) because the seed resembled a small beech nut and was similar in size to a wheat kernel.

### CONSUMER ACCEPT AN UNUSUAL GRAIN PRODUCT

Already one century ago, the grain played a very important role in the diet of the Slovenian people. It was also used as stubble crop on poor soils. A second crop could be harvested in late autumn, just before winter, when farmers did not have to pay tithing. Buckwheat porridge and gruel served as everyday dishes for our ancestors. Buckwheat dumplings, cakes and buckwheat cake were popular festive and ceremonial dishes.

Black buckwheat bread made by farmers from Carniola (a historical region that comprised parts of present-day Slovenia) and a special way of how to prepare buckwheat was already mentioned in the book *The Glory of the Duchy of Carniola*, which is an encyclopedia published

in 1689 by Johann Weikhard von Valvasor. *The Valentin Vodnik Guide*, published in 1799 by Valentin Vodnik, is considered the first printed cook book in Slovenian language and there is the record of *ajdova potica*- a buckwheat roll. However, Valentin Vodnik, who was a Carniolan priest, journalist and poet of Slovene descent, considered the buckwheat as food for farmers and poor people. Back in those days, the buckwheat was an even more resistant plant than today and in severe years, when the slovenian people suffered from hunger, buckwheat tartar was the meal that helped to feed the hungry. This dish received the name *cojzla*, after Baron Ziga Zois who helped to spread it from the Czech Republic to Carniola in the years between 1812 and 1815.

Some aspects in processing the grain, such as grain milling baking, confectionery and cooking, remained the same because the basic principles are still the same as they were centuries ago. Nonetheless, there are discoveries and improvements from the fields of research and development that are more and more contributing to the technological advance. Still, this advance is sometimes happening too slowly because there are not enough teaching incentives for the revival of the traditional products in new forms, flavours and images that are suitable for the modern consumer. The persons who get to decide what's sold in the super markets often chose these products



*Buckwheat*  
seeds.

only considering economic aspects. Additionally, we face a lack of cultural and technological heritage in the leading economic circles of the country. This causes many problems and often closes the options that would be both - technologically as nutritionally - very helpful and useful for people who suffer from nutritional diseases. Celiac disease is one example where buckwheat can be very beneficial.



*Buck-  
wheat  
pastry.*



## HEALTH BENEFITS OF BUCKWHEAT

In the folk medicine it is known, that buckwheat herb has been used as a tonic for the veins and capillaries since a very long time. People's use today is also supported by pharmacological and clinical research for purposes such as tiredness, heavy legs, pain, cramps in the calves, not to mention other usability. For all these reasons, and especially because of some traditionally-rooted beliefs, buckwheat is still a kind of a mysterious plant. In the popular literature, you can find records that require serious research assessment for statements like the following: *"If we compare it to grain - which contains about 50 percent of the protein needed for metabolism - buckwheat contains more than 90 percent. Buckwheat has a large amount of essential amino acids and its proteins are much better balanced and it has a higher nutritional value than cereals."* This kind of information may provoke, that persons, who do not question it, expect more than they really get.





## Buckwheat Bread with Walnuts

### INGREDIENTS

400 g buckwheat flour  
600 g wheat flour TYPE 500  
30 g yeast  
18 g salt  
20 g butter  
10 g of brown sugar  
650 ml water  
Walnut kernels

### PREPARATION

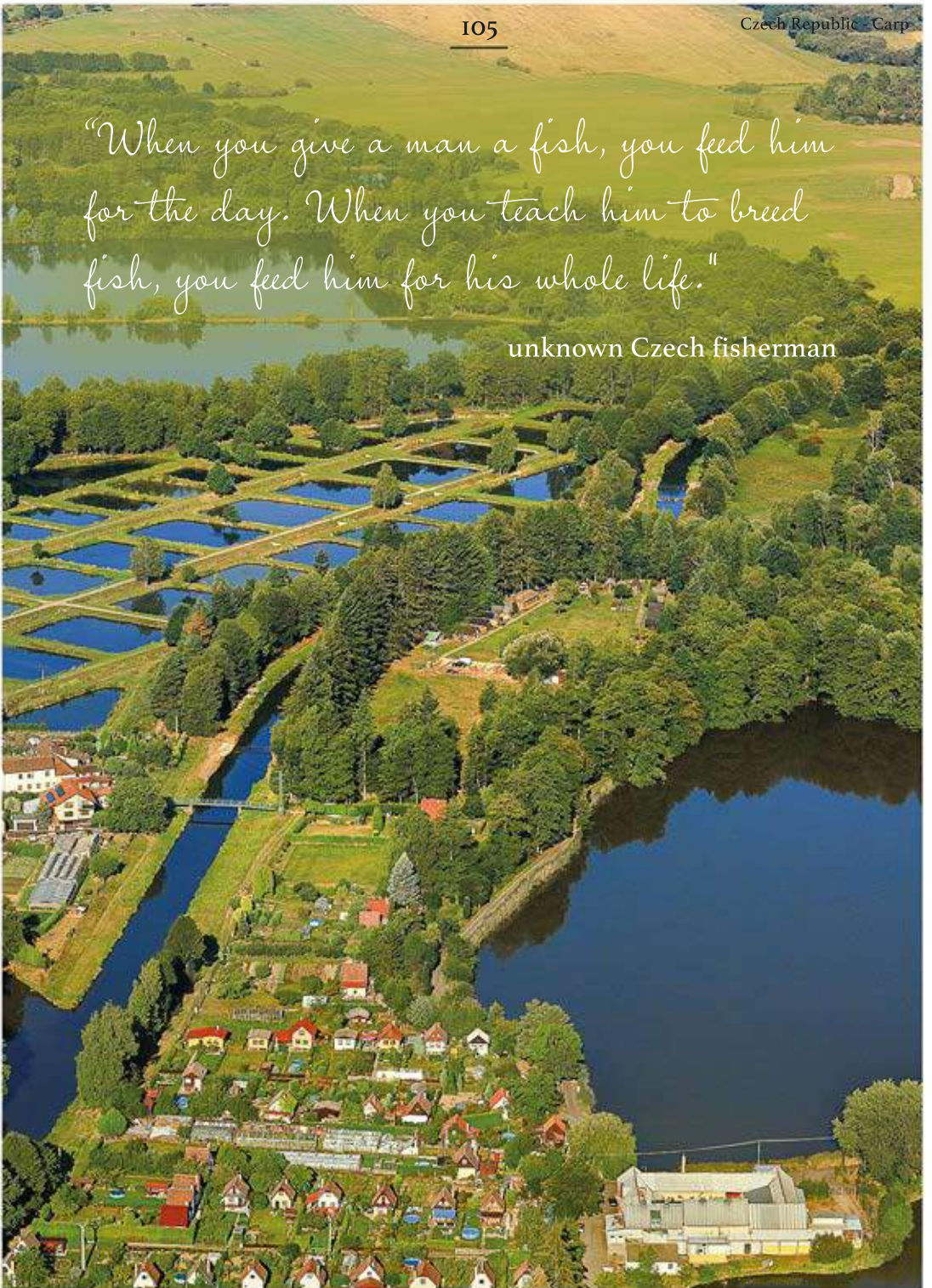
1. Weigh the ingredients and knead into a smooth dough (yeast is added directly).
2. Add the walnut kernels and let it rest for 30 minutes.
3. Form a round loaf and place it on a greased baking tray. Let it rise for another 30 minutes. Bake for 35 to 40 minutes at 200°C.





*"When you give a man a fish, you feed him for the day. When you teach him to breed fish, you feed him for his whole life."*

unknown Czech fisherman







LUBOŠ ZVONĚR

DIRECTOR OF FISHERY NOVÉ HRADY LTD.

## CZECH REPUBLIC: CARP

Hi, my name is Luboš Zvonař. I am I am the director of Fishery Nové Hradý Ltd. based in South Bohemia, Czech Republic. For more than forty years, I have been interested in aquaculture, especially in fish reproduction and carp pond culture. Fish and aquaculture is my life.

The Czech Republic is a small country in Central Europe with approximately 25,000 ponds, which equals a total surface of roughly 52,000 hectares. The majority of the ponds are used for carp-based polyculture production where the common carp is the main product. However, ponds have several additional functions other than food supply. They play an important role in the ecosystem by maintaining biodiversity, fostering the regeneration of groundwater resources and stabilizing the regional climate. Furthermore, ponds have a cultural function. They are an important place for recreation, education and rural development.

### EXCELLENT NUTRITIONAL AND ORGANOLEPTIC QUALITY

The *common carp* is the most important product of Czech aquacultures, as it is a traditional Czech dish. However, also other high-quality fish species (e.g. the *Chinese carp*, *tench*, *pike*, *perch*, *pikeperch* etc.) are produced here. For all these fish species a semi-extensive culture method with a 3 to 4-year production cycle is used. Most of the fish production is based on natural feed supply – zooplankton, zoobenthos and prey fish. The whole Czech pond culture uses organic farming and the marketable fish show an excellent nutritional and organoleptic quality. 90 percent of all fish farms in the Czech Republic are organized in the Czech Fish Farmers Association (CFFA). This body owns the registered trademark *Czech carp* and CFFA members use the traditional Czech pond culture technology. Only high-quality marketable carp can be sold under this trademark at the markets. Other trademarks, such as *Trebon carp* (protected geographical indication), *Pohorelice carp* (protected

designation of origin) and *Omega 3 carp* (registered trademark) have been developed to support carp marketing in the Czech Republic.

#### DAILY FISH CONSUMPTION FOR A HEALTHY BODY

*Omega 3 carp* meat contains a guaranteed level of essential, unsaturated fatty acids, which is the most important health-beneficial property of fish. This trademarked carp is bred using a special feed made according to an original recipe based on rape pressings and extruded flax. 200 g of Marketable *Omega 3 carp* meat contain at least 1 g of omega-3 fatty acids.

Generally, I would recommend eating fish every day. It plays an important part in human nutrition and provides the body with essential fatty and amino acids, minerals and vitamins. However, aquaculture plays a rather marginal role in the national economy of the Czech Republic. But due to a long history, tradition, and environmental aspects, Czech fisheries managed to secure their position on the local and even European markets.



*The harvesting of a large pond is often accompanied by street markets or local festivities to celebrate the “Harvesting Days”. Czech fishermen are very proud of their craft, so they often organize seminars, competitions, excursions and trips.*



*Fish production in the Czech Republic has a strong seasonal character. The main harvesting period takes place in autumn or spring.*



*Freshly harvested carp.*





## Carp Roulade Stuffed with Fruit

### INGREDIENTS FOR 10 PORTIONS

1,5 kg carp filet  
300 ml cream (33 percent fat)  
2 eggs  
20 g salt  
30 g fish spices  
50 - 80 g edible gelatine  
100 g dried fruit (peaches,  
plums and cranberries)  
50 ml vodka (40 percent)

### PREPARATION

1. Cut the carp with skin into filets of equal size (approx. 1 cm thick). For the stuffing, use the spare meat and cut it into small pieces. It can be supplemented by meat from the tail section. Put the meat in a blender, add spices, cream, eggs and salt and blend it until smooth.
2. Put each filet on cling film, salt it lightly and add fish spices. Sprinkle the entire surface of the slices lightly with gelatine. Spread the meat stuffing on two thirds of each filet, then add previously prepared dried fruits (washed and marinated in vodka (40 percent) for approx. 4 hours, after that drain in a sieve and wrap in powdered gelatine).
3. Use the cling film to roll up and tighten each filet with stuffing. Wrap the rolled-up roulade in aluminium foil and tighten. Cook the roulade in an oven with injection steam at 80°C for 45 minutes. If you only have a regular oven use a roasting tray and sprinkle the roulade with a little bit of water.
4. After 45 minutes, remove the roulade from the oven and let it cool down for 30 minutes. Unpack the foil and cut the roulade into small slices for serving.

*“Poems on roses might still suit, but  
in the apple one must bite.”*

Johann Wolfgang von Goethe, Faust II







GRAŻYNA WIATR

APPLE GROWER

## POLAND: APPLE

My name is Grażyna Wiatr, née Sut. I was born in a region that is today known as Łowicz County, close to the city of Skierniewice in Łódź Province, central Poland. For many years, this region has been associated with fruit farming and the fruit and vegetable industry. The rapid development of fruit farming in this area began with the end of World War II. A very important name to mention in this context is Prof. Szczepan Pieniążek. He contributed to the founding of the Research Institute of Pomology and Floriculture in Skierniewice, which provided local fruit farmers with new knowledge and experience in apple cultivation. On his recommendation, the Experimental Station of the Research Institute of Pomology and Floriculture was established, located on a Prussian estate which was destroyed during the war. The station developed into a model farm which passes on practical know-how not only to the fruit farmers from the region but also to farmers from the entire country.

### GROWING APPLES IS A FAMILY TRADITION

My family has always loved fruit trees. The first fruit trees belonged to my great-grandfather. My uncles and other relatives owned smaller or larger orchards. My grandfather had a beautiful backyard orchard with different apple varieties: *Malinówka*, *Landsberska*, *Szara Reneta* and *Antonówka*. Nowadays, my mother lives on the farm and in the orchard you can find a 110-year-old *Kosztela* tree that still bears fruits.

I have many childhood memories of my grandmother's juice. Apart from the traditional raspberry juice, my grandmother used to make apple juice using a small wooden press. For more flavour and to have a healthy component, she added homemade syrups to the juice. She sprinkled herbs with sugar, e.g. young nettle roots and leaves, elder flower or dandelion, and then she mixed them with the apple juice and boiled it.

In the past, cold-pressing and pasteurization of juice were not very common, especially on farms. Therefore, it was not carried out on a large scale. In the Museum of Łowicz, you can see small screw presses from this region, which have been preserved and date back to the first half of the 20<sup>th</sup> century. There can still be found some copies of these presses on regional farms. Pulp pressing was also performed using homemade planks and lever presses. From time to time, the juice was even extracted with the help of a cheese press.

In 1978, we bought from my uncle a 17-hectare orchard in Kałęczew. Kałęczew is located close to the Łódź Hills Landscape Park, the Mroga river and the Arboretum of the Warsaw University of Life Sciences in Rogowo. This special surrounding creates a unique microclimate which makes the fruit juicy, fragrant, delicious and free from industrial pollution. Our farm is a member of the ELITA Fruit Producers Group. We grow fruits, tomatoes and herbs.

*Freshly squeezed apple juice has many bioactive compounds that play an important part in the prophylaxis of common lifestyle diseases.*



*Wiatrowy Sad* is a family business that I run together with my husband Stanisław and my son Łukasz. We decided to engage in fruit processing several years ago, when the apples in our orchard were destroyed by a hailstorm. The apples were still tasty and robust but damaged by the hail and could not be sold or exported. Nonetheless, we felt it would be a waste to sell them for industrial purposes. Then I remembered my grandmother's juices. A mobile pressing plant close-by provided fruit pressing services. We used part of the apples to make juice to see if these drinks can be sold. I did research on the properties of cold-pressed juices and the possibilities of combining apple juices with other flavours to increase their health benefits and nutritional value. My goal was to have a product with the best health effect and the best quality possible. The hailstorm turned out to be a blessing in disguise.

#### PASSION LED TO THE INNOVATION OF NEW FRUIT JUICES

With the help of European Union funds, we invested in the construction of a modern pressing plant and bought the necessary equipment. At that time, nobody had ever tried pressing juice from herbs or fruits with very little juice, such as rosehip and elderberries. We spoke to many people, including scientists, did trials, and finally, thanks to perseverance, determination and passion, we reached our goal. We created a new, improved version of my grandmother's juice. Currently, *Wiatrowy Sad* offers 27 different flavours, including one with a 100 percent tomato. The other juices are all apple-based. For pressing we use a carefully selected variety that is enriched with vegetables and herbs (2-40 percent). We first entered the Polish market with the following juices: apple with elderberry, apple with lemon balm, apple with nettle, apple with lemon verbena, apple with young green barley, apple with young green oat and apple with dandelion. It is worth mentioning that the herbs are also cold-pressed in our pressing plant. The same applies to mint, which gives our apple juice with mint its surprisingly refreshing, unique flavour.



Our juices are pressed according to traditional methods. We use fresh, high-quality fruits, vegetables and herbs, apply the method of cold-pressing and do not add any preservatives. The juices are pasteurized at 80°C and then poured into 3 litre or 5 litre bag-in-box packages and 300 ml glass bottles. This method allows us to maintain the taste of fresh fruit, vegetables and herbs, and almost all the minerals and vitamins they contain.

We are very proud that the remarkable taste of our juices, our hard work and the high quality of the ingredients have been appreciated and rewarded by various organizations and authorities. However, it is particularly important to us that the juices are appreciated by the consumers, even by the most demanding ones like chefs of famous restaurants.

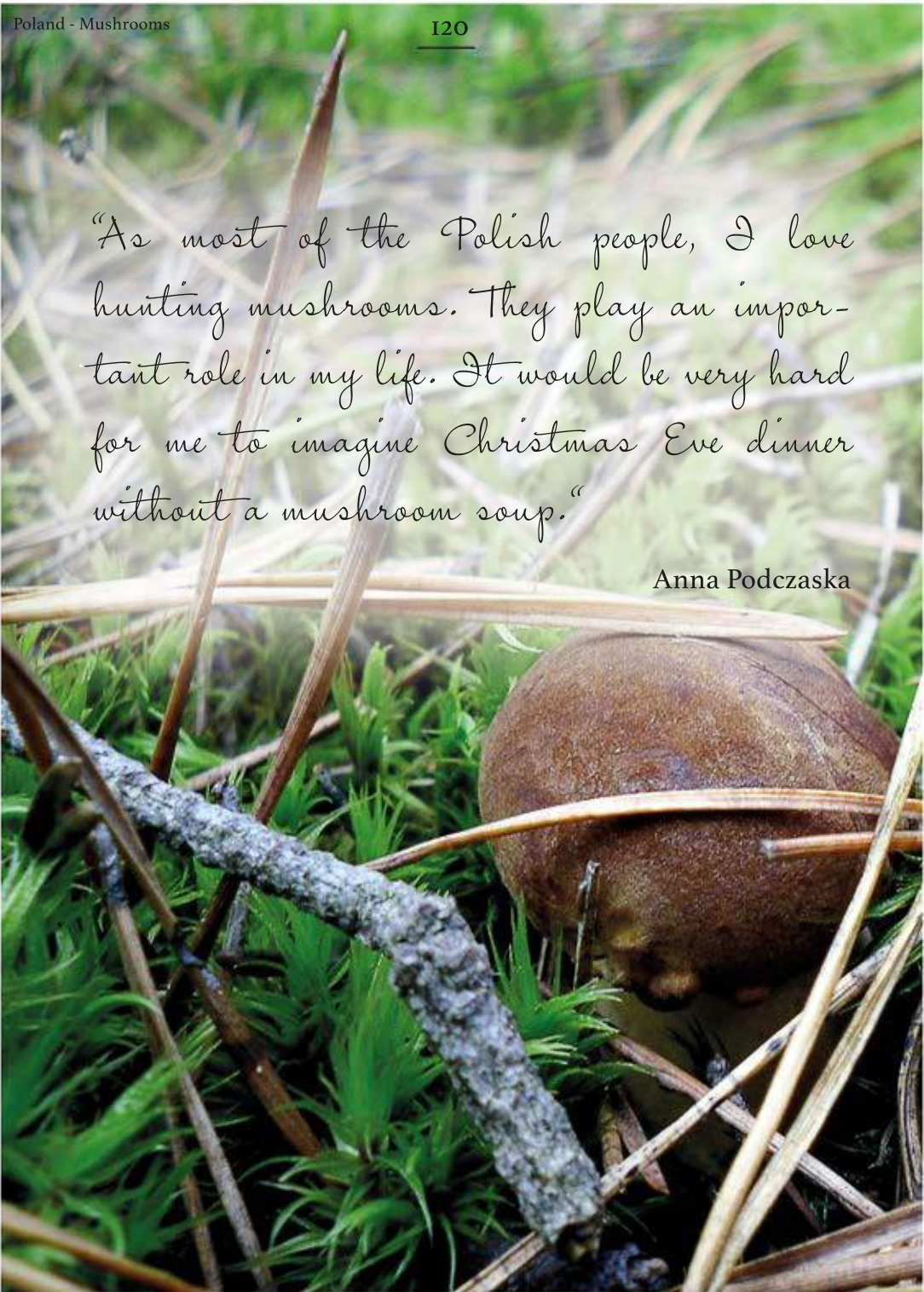
Apple juice from Kałużew has been listed on the national list of traditional products. Furthermore, our juice got the *Jakość Tradycja* (Quality Tradition) certificate from the national food quality assurance system, as well as the *Poznaj Dobrą Żywność* (Try Fine Food) sign from the Ministry of Agriculture and Rural Development. We owe our success to our pure passion for pressing juice.

Naturally cloudy apple juices have many bioactive compounds that play an important part in the prophylaxis of common lifestyle diseases. As their production does not involve any enzymatic processing, clarification or filtration, cloudy juices contain up to four times more polyphenols (mainly flavonoids) than clear ones. Consequently, they are also more effective in scavenging free radicals, one of the main factors in the development of lifestyle diseases.

The polyphenols in cloudy apple juices protect humans against cancer, help delay the ageing process, support the immune system and have anti-inflammatory properties. Prof. Jan Oszmiański, head of the Department of Fruit, Vegetable and Cereal Technology at the Wrocław University of Environmental and Life Sciences discovered these amazing properties of cloudy apple juices. According to him, every adult should drink one to two glasses of this juice per day.

*“As most of the Polish people, I love hunting mushrooms. They play an important role in my life. It would be very hard for me to imagine Christmas Eve dinner without a mushroom soup.”*

Anna Podczaska









ANNA PODCZASKA

FORMER RESEARCHER IN THE FIELD OF HORTICULTURE

## POLAND: MUSHROOMS

Mushrooms have been collected and eaten by people since prehistoric times. At present, mushrooms are still collected, although, due to decreasing forest area and biodiversity, the wild fungi are rare and expensive. You also have to keep in mind that besides the edible ones, there are mushrooms that are deadly poisonous or hallucinogenic. Therefore, the collection of wild mushrooms must be done with care and is not advisable for unexperienced collectors.

In Poland, the collection of wild mushrooms is an important source of additional income for people in rural areas and a popular pastime activity for city dwellers. There are 42 kinds of mushrooms that have been approved for consumption by the Ministry of Health, but only several are collected commercially. The most popular and most expensive kinds are ceps (*Boletus spp.*), chanterelles (*Cantharellus cibarius*), saffron milk caps (*Lactarius deliciosus*) and green night caps (*Tricholoma equestre*). The annual harvest is estimated at 50,000 t, of which approx. 20,000 t are exported (predominantly as fresh mushrooms).

### NOT ALL MUSHROOMS CAN BE CULTIVATED

The cultivation of mushrooms (fungiculture) started in China and Japan in the 12<sup>th</sup> century and in Europe three centuries later. However, the existing technologies only allow the cultivation of saprophytes which grow naturally on decaying wood and other plant debris. Attempts to cultivate other species, which are symbionts of forest trees, truffles or boletuses, were not successful. At present, approximately 20 edible mushroom varieties are cultivated worldwide, the most popular being champignons (*Agaricus bisporus*), shiitake (*Lentinus edodes*), and oyster mushrooms (*Pleurotus spp.*).

The mushroom cultivation in Poland (mainly champignons) started as early as the 17<sup>th</sup> century, but the production was very small. The industrial cultivation started in the 1930s, but only after 1990, modern

technologies were implemented and the production volume and the product quality significantly increased. In 2014, there were about 3,700 SMEs producing mushrooms in Poland. Nearly 70 percent of them are small, family-run enterprises. The main cultivated crops are champignons (95 percent) and oyster mushrooms (4 percent). The annual production exceeds 300,000 t.

#### THE PROCESSING OF WILD MUSHROOMS TAKES PLACE AT HOME

Wild mushroom are quickly perishable and the decay products are often harmful to consumers. Therefore, they must be consumed or processed within several hours after collection. Traditionally, mushrooms are dried, pickled and, in some areas, salted and soured /fermented. The processing of wild mushrooms takes predominantly place at home. There are only a few SMEs that dry or pickle them at a commercial scale. Traditional dishes with mushrooms are chanterelles and saffron milk caps fried in butter, stewed boletuses and a variety of mushroom soups. Furthermore, dried mushrooms, mainly ceps, are used as condiments for meat dishes and sauces, for the production of *hunters stew* (sauerkraut cooked with meat and dried mushrooms) and for dumplings stuffed with sauerkraut and mushrooms. Pickled mushrooms are used as side dishes and as ingredients for salads.

Just like wild mushrooms, cultivated mushrooms are popular ingredients of traditional foods in Poland. They are used as stuffing for dumplings and in soups and sauces. A dozen traditional dishes made of mushrooms have been certificated *Our Culinary Heritage* or *Quality Tradition*.



*Cultivation facility for champignons.*



*In Poland, the collection of wild mushrooms is an important source of additional income for people in rural areas.*





## Forest Mushroom Stewed with Onions and Sour

### INGREDIENTS

**1 kg** mixed forest mushrooms (ceps, bay boletes, chanterelles)

**1** big onion

**1** tablespoon oil

**1** tablespoon butter

**200 ml** sour cream

Salt

Freshly ground pepper

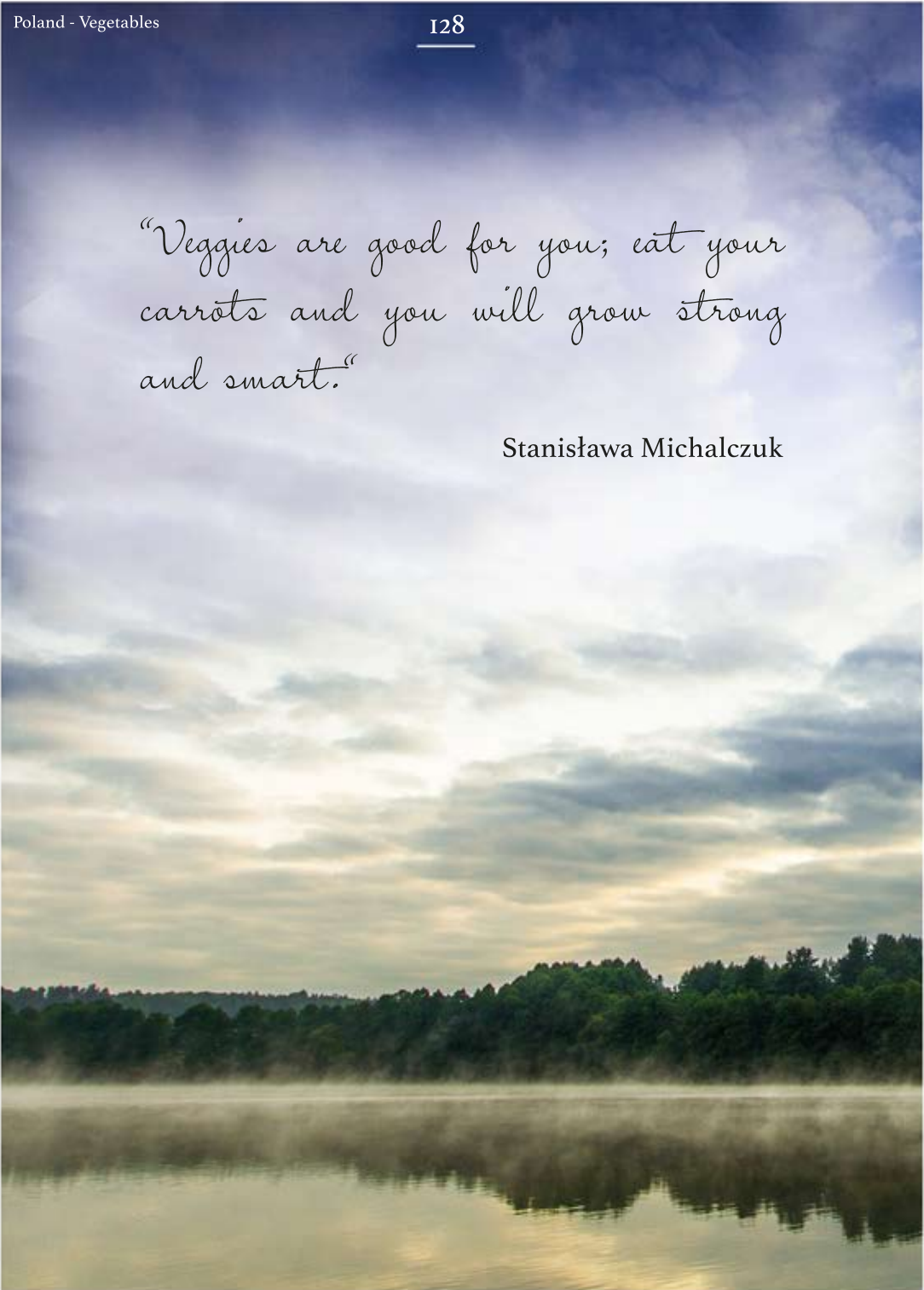
Optionally parsley leaves  
or thyme

### PREPARATION

1. Shred the onion and fry lightly in oil and butter until the shreds are glazed.
2. Wash the mushrooms thoroughly, blot the water off on a paper towel, slice them and stew with fried onion under cover for approx. 30 min.
3. Add salt and pepper according to taste and mix the mushrooms with sour cream.
4. Tastes best when served with potato noodles and spinach.

*“Veggies are good for you; eat your carrots and you will grow strong and smart.”*

Stanisława Michalczuk









## POLAND: VEGETABLES

Vegetables are a source of some essential nutrients, like vitamins A, C, E, and K, macro- and microelements, flavonoids, and other antioxidants. Thus, they have been consumed commonly as a supplement to staple food based on cereals, which are deficient of those compounds. Besides their nutritional value, vegetables become popular as food due to their taste and flavour, which increased the attractiveness of daily diet.

Archaeological excavations show that vegetables have been cultivated in the Near East since paleolith and has been popular in Ancient Egypt, Greece and Rome. In Poland, cultivation of vegetables started in the Early Middle Ages. The accounts of the court of Polish king Władysław II Jagiełło show, that their diet included cabbage, peas, cucumbers, beets, turnip, broad beans, lentils, onions, carrots, curly kale, lettuce and fennel. In peasant families the food was supplemented also with wild vegetable plants, like sorrels (*Rumex acetosa*), hogweed (*Heracleum sphondylium*), goosefeet (*Chenopodium album*), bear's garlic (*Allium ursinum*) and common nettle (*Urtica dioica*).

In the 16<sup>th</sup> century, the selection of vegetables on Polish tables was significantly enriched by the queen Bona of the Italian family Sforza, who imported many vegetables from her home country. This included cauliflower, parsley, celery, artichoke, leek, broccoli, green beans, garlic, lettuce and spinach. Because of the Italian origin, a new name *włoszczyzna* (in the free translation means "originated in Italy") was coined for these novel vegetables. This term is still used in Polish language, but nowadays it is applied only to the mix of vegetables used for soups.

Since the 17<sup>th</sup> century, vegetables from America, like tomatoes and pumpkins are being cultivated in Poland. In the 19<sup>th</sup> century kohlrabi,

radishes, pepper, aubergines, Brussel sprouts and a number of lettuce species have been introduced. At present, over 40 vegetable species are cultivated commercially in Poland - worldwide there are more than 250 species. The most important are: cabbage, cucumbers, tomatoes, carrots, onions, red beets, cauliflower, beans and peas. With an annual production ranging from 4.9 million tons to 5.6 million tons, depending on the season, Poland is the third/fourth producer of vegetables in the EU. Open field production is carried out on 90 thousand farms and 12 thousand farms produce vegetables under covers.

Vegetables are important constituents of traditional foods in Poland. They are eaten raw in salads and stewed, fried or boiled. Some foods have a history dated back to the 17<sup>th</sup> century, like potato noodles and pancakes, *hunters stew* (in Polish *bigos*), red beet soup, white borscht, bear's garlic soup, cooked rice wrapped in cabbage leaves (in Polish *gotąbki*) and others. The "queen" of polish tables is cabbage, which may be cooked fresh, but more frequently as sauerkraut after souring/fermenting. It is hard to imagine a Christmas dinner in Poland without "bigos" or dumplings stuffed with sauerkraut and mushrooms. The barrel with sauerkraut has been a must in the pantries of traditional Polish homes and cabbage harvest and preparation of sauerkraut (shredding the heads and stamping them in barrels) has been the occasion for festivities comparable to winemaking in wine countries. A common equipment of the pantries was also a barrel of soured cucumbers (dills).

Similar to other Member States of the EU, also Polish high-quality traditional and regional food products are labelled by one of the EU quality marks: Protected Designation of Origin (PDO), Protected Geographical Indication (PGI) or Traditional Specialty Guaranteed (TSG). At present, 37 Polish products have been assigned one of these certificates. Among them are ten products made of vegetables, fruits or grains. Following accession to the EU, Poland launched a domestic certification scheme called *Quality and Tradition* which aims to preserve products characteristic for various regions of Poland. The List of Traditional Products (LPT) published by the Ministry of Agriculture and Rural Development contains at present 1558 products in which 139 are traditional products made of vegetables.







## Red Beet Soup

### INGREDIENTS

1 kg fermented sour beets  
 3 carrots  
 1 parsley root  
 1/2 of a leek  
 3 branches of parsley leaves  
 2 teaspoons marjoram  
 2 cloves of garlic  
 1 1/2 cups of apple juice  
 1 teaspoon extra virgin olive oil  
 1 teaspoon sugar  
 Pepper and salt

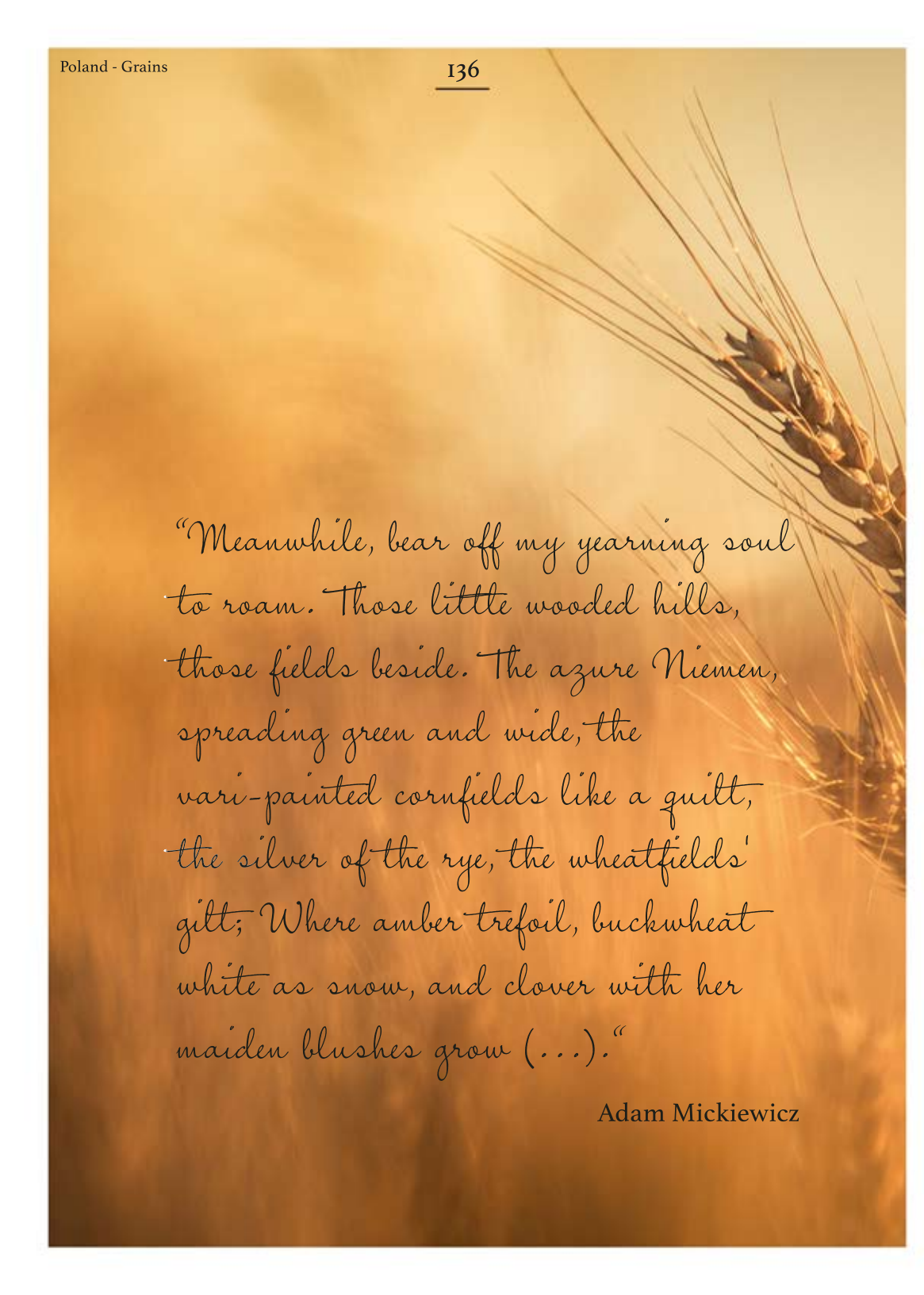
### PREPARATION

#### Fermenting the beets:

1. Wash thoroughly, peel and slice 1 kg of red beets. Put the beet slices into a big jar, add 3 cloves of garlic, 2 peppercorns, 1 bay leaf and 3 cups of mineral water. Close the jar and leave it at room temperature until a foam appears on the liquid surface.
2. Then transfer the jar to a cellar or cold room (10°C room temperature). After two weeks, the sour beets are ready for consumption.

#### Cooking the soup:

3. Put peeled and sliced carrots, parsley root, peeled onion, leek and parsley leaves in a pan, add 1.5 litres of water, cover with a lid and cook for approx. 45 min.
4. Remove the vegetables which only leaves the bullion, add the fermented beets from the jar together with their juice, marjoram, sliced garlic, apple juice, olive oil and season with salt, sugar and pepper according to taste.
5. Mix it thoroughly, heat it at low power (but do not allow it to boil) and drain through cheese cloth. The red beet soup tastes best when served with dumplings stuffed with sauerkraut and forest mushrooms.



“Meanwhile, bear off my yearning soul  
to roam. Those little wooded hills,  
those fields beside. The azure Niemen,  
spreading green and wide, the  
vari-painted cornfields like a quilt,  
the silver of the rye, the wheatfields'  
gilt; Where amber trefoil, buckwheat  
white as snow, and clover with her  
maiden blushes grow (...).”

Adam Mickiewicz







## POLAND: GRAINS

Although history sometimes brought them together, the two regions of Warmia and Mazury, which are often considered the same area, are very different, such as in their history and traditions. They do not only have different cultures and indigenous languages, they also do not share the same religions and beliefs. The Warmians have always been Catholic, while Masurians are Protestants. These historical areas of north-eastern Poland experienced many wars and tragic events, which forced their inhabitants to relocate.

Warmia and Mazury are dominated by agriculture, forests and fish. They are known for the cultivation of potatoes, beetroot, rutabaga and turnip, as well as winter cereals and buckwheat. Over the years, we could also observe a gradual development of the breeding of dairy cows, pigs and poultry. The forests abound in edible mushrooms, wild berries and blackberries, as well as game. The surrounding lakes are rich in all kinds of freshwater fish and there are breeding farms specialised in the sale of fish straight from the lake. These lakes are also famous for being the habitat of rare birds. The number of lakes, rich forests, beautiful meadows and picturesque pastures, together with the developing infrastructure in the region, make Warmia and Mazury a very appealing place to live in. The region attracts many visitors and offers tourists a culinary feast and lots of attractions throughout the year. Even though, there is no such thing as the traditional Warmian and Mazurian cuisine, the combination of Polish, German, Lithuanian and Ukrainian culinary influences has made this region a melting pot of flavours, which will satisfy numerous tastes. Mazurian cuisine is high in calories, however, according to dieticians, it turns out to be not as bad when compared to today's fast foods. In contrast, Warmian dishes are mainly light.

The hard work on the farms and the harsh climate did never spoil the locals here. This is the main reason for the rather simple, sometimes even poor, local cuisine, rich in fats and ordinary vegetables (potatoes, carrots, beetroots and turnips). Perhaps you are familiar with the

the so-called peasant breakfast, which is a combination of fried eggs with bacon and potatoes. Since wheat flour was rare, housewives often added some potato starch to their pastries. Baba (a sweet yeast cake), cheesecakes and biscuits were part of every week's diet. There was no Sunday without a cake, at least a simple one. According to season, the cakes would contain locally grown food like apples, prunes, cherries, gooseberries or rhubarb. There was also an Easter specialty, a pyramidal cake baked exclusively from wheat flour and many eggs, the so-called *sękacz* (kalach, baumkuchen). Everyone adored it and the baking process of this cake was kind of a ritual and took at least a few hours.

Mazurian cuisine was the exclusive domain of women. Any male family member would not dare to interfere. Except one thing – rotating the spit while *sękacz* was baked. That was a task for boys. The girls would pour the batter over the spit and collect what was dripping. I enjoyed watching the dripping, yellow, sticky batter form weird shapes. The flames brushed these shapes gently, painting them with different shades of brown. I used to stare at these icicles of cake and wondered what would be their ultimate shape and colour. These always depended on many different things, such as on who was rotating the spit. Below the spit, there was a bread baking tray used to collect the dripping remains of the batter, as it was heavy on eggs and genuine flour. We had to wait patiently until it accumulated to a sufficient quantity, and then carefully pour the batter over the spit to give it the desired shape. This would take an entire evening, as *sękacz* had to be baked for at least four hours.

Wealthier households would only use wheat flour (with no potatoes added), bearing in mind that the yellow colour of the cake depended on the number of eggs added – the more the better. It was a real celebration. I remember my grandmother's kitchen filled with the scent of potatoes. And every Saturday we would prepare almost everything possible – from butter, cream and bread to cakes and kalach (type of sweet bread).



*The natural beauty of the regions Warmia and Mazury is largely unspoiled.*



*The more eggs are added to the sękacz the stronger it turns yellow in colour.*





# Baumkuchen

## INGREDIENTS

450 g butter  
 450 g sugar  
 225 g orange zest  
 1 vanilla pod  
 1 teaspoon ground  
 cardamom  
 30 eggs

## PREPARATION

1. Stir butter in a stone bowl, until creamy, add sugar, finely grated orange zest and cardamom, and stir again. Beat in the egg yolks one at a time, add flour gradually and beat thoroughly after adding each ingredient. While adding the last five yolks, add a third of the well-whipped foam and mix thoroughly.

2. Next, add the rest of the foam and stir gently. Once the batter is ready, light the fire. Wrap the baumkuchen roller with white paper and tie securely with a twine. After putting it on a rotating spit over fire, pre-heat well and pour the melted butter over paper and twine. Start then to turn the spit very slowly. Pour the batter with a spoon or a little pot over the entire roller. When the first coat has a brown colour, pour the second coat of the batter and immediately spin the roller faster to obtain the icicles.

3. After pouring the batter for the fifth time, dilute it with milk and start pouring again, spinning the roller faster and faster, until you get a quite thick baumkuchen. Take away the cake from the fire, but, for now, leave it on the roller. Add a lemon icing, spreading it evenly with a brush. Let it cool down, then cut it evenly on both sides while taking away the roller, and place it on the table. Decorate with waffle leaves or flowers.

*“Fish living in lakes in Warmia  
and Mazury are said to be our  
natural treasure.”*

Polish proverb









PIOTR, MIROSŁAW AND TOMASZ TYMOSZCZUK

OWNER OF FISH FARM OF SZWADERKI LTD.

## POLAND: VENDACE

My name is Tomek Tymoszczuk, I am the vice president of the fish farm Szwaderki LTD, responsible for fish processing and sales management. It feels like a family business: my father is the president of the company and my brother is responsible for fish farming in ponds and lakes. All of our company's board members are graduates in the field of fishery of the University of Warmia and Mazury in Olsztyn. Many families who live in nearby villages (e.g. Szwaderki Marózek, Kurki, Lipowo, Nadrowie, Dębie) work for our company. Thanks to my father, fish and their breeding process have always been part of my life. Our farm is located in the beautiful region of Warmia and Mazury in north-eastern Poland, a non-urbanised area called the *land of a thousand lakes* (in fact, there are over 2,000 lakes). The exceptionally pure natural environment is ideal for local fish farming and therefore, the high-quality fish became a specialty of the region of Warmia and Mazury.

### FISH FROM WARMIA AND MAZURY - THE NATURAL TREASURE OF OUR WATERS

In Warmia and Mazury, you can find a plethora of lakes, rivers and streams. Because of the abundance of fish, people living in this area have been working for centuries in the fishing trade. For large parts of the local community, this was the main source of their income. The history of the Szwaderki fish farm goes back to the year 1903. The former owner was a member of the East Prussian fishing cooperatives and started at the beginning of the 20<sup>th</sup> century to send fresh and processed fish to Western Europe. Currently, we fish in more than 80 lakes, have several breeding ponds and a fish processing plant. Our ponds are supplied with pure water from the Marózka River. The bred fish are fed with natural grain or commercial feed of highest standard value. Trout, carp, vendace, whitefish as well as eel, pike, perch and pikeperch - these are all fish species which can be found in our lakes or are bred in our ponds. At our farm, we appreciate the rhythm of nature and the natural growth of fish. From the beginning, our family

and company have been devoted to the development of fisheries preserving regional traditions.

#### OUR TRADITIONAL FISH PRODUCTS

In the past, fish in the region of Warmia and Mazury was consumed in various forms: fried in oil, salted, smoked, marinated in vinegar, as well as fish soup. In our region, fish was one of the main trade products. At the fish market in the old town of Olsztyn people sold different fish species and dairy products. Currently, all the fish we offer come from our lakes and ponds. We have fresh fish, smoked fish and fried fish marinated in vinegar, prepared according to the traditional recipes of Warmia. One of the local delicacies is vendace in marinade (see recipe below). In our processing technology, we often use the knowledge and experience of the old inhabitants of the region. To always get the same tasty, high-quality fish, the traditional smoking process over hot wood (usually beech and alder) is conducted in modern smoking chambers, which allows to control the process closely. Our lakes are also used by anglers, additionally we offer activities in agrotourism. In order to facilitate the purchase of our products outside the farm shop and fish bar, we also offer direct sale at numerous town markets, using a specially prepared car called “Szwaderkomobil”. Our customers are very pleased that our products have the sign of the European Network of Regional Culinary Heritage of Warmia, Mazury and Powiśle.



*Smoked vendace – one of our specialties.*



*An old mill was adapted to function as the company office.*

*Trout ponds.*







## Fried Vendace, Marinated in Vinegar

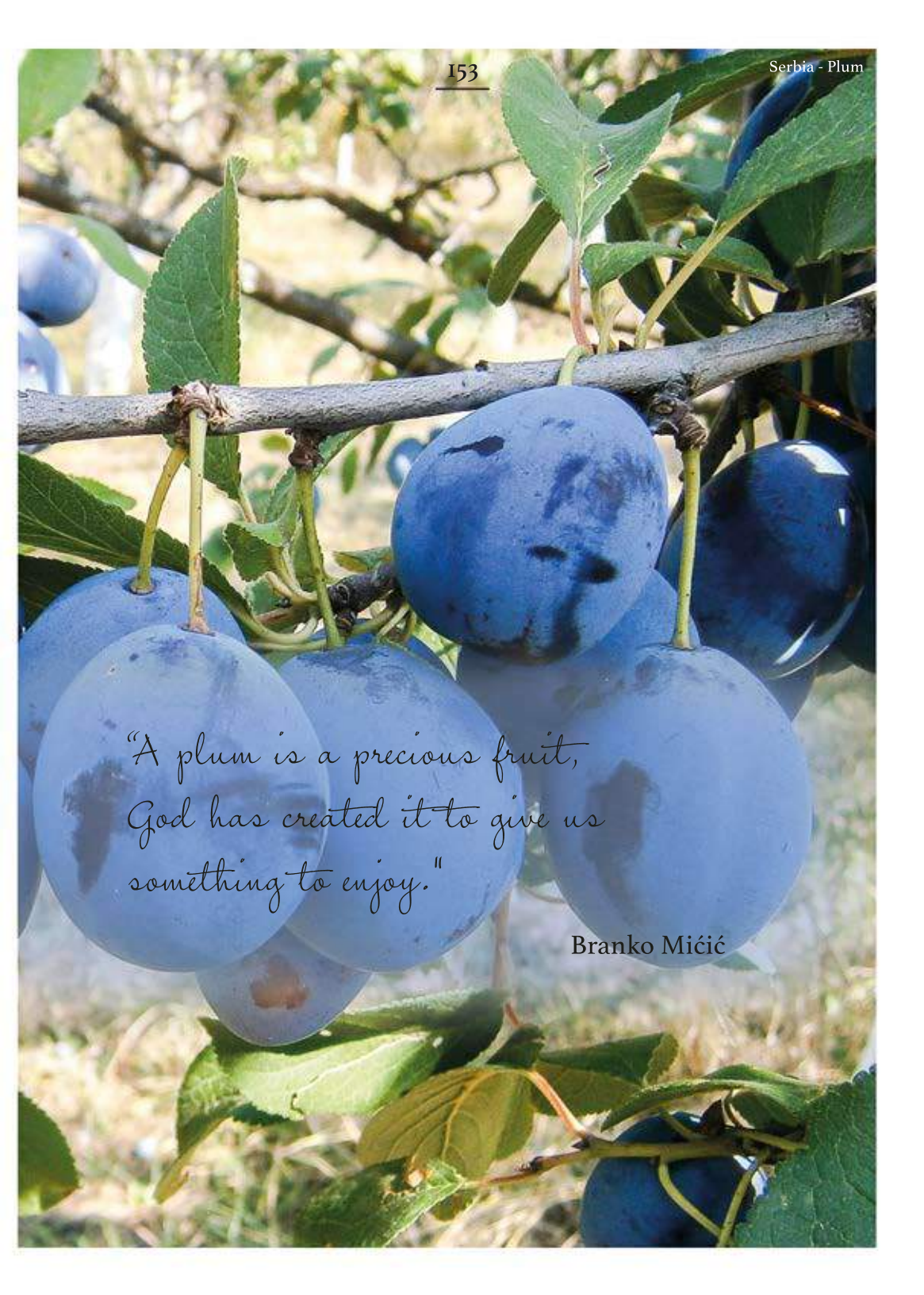
### INGREDIENTS FOR 5 PORTIONS

1 kg fresh vendace  
2 onions (200 g)  
1/2 red pepper (200 g)  
1 clove of garlic  
1 twig of fresh thyme or a  
pinch of dried one  
1 glass vinegar (10 %)  
3 glasses water  
bay leaf, allspice, salt, pepper  
1 tablespoon sugar  
wheat flour and frying oil

### PREPARATION

1. Clean the vendace, salt it, coat with wheat flour and fry until golden brown.
2. Place in a jar, sprinkle with chopped onion rings and diced red pepper, set aside in a warm place.
3. Boil water with vinegar and spices.
4. Pour the boiling marinade to the fish and close the jar.
5. Before use, the product should be pasteurized.





*"A plum is a precious fruit,  
God has created it to give us  
something to enjoy."*

Branko Mičić





CANE JOVANOVIĆ

PROCESSOR OF TRADITIONAL FOOD

## SERBIA: PLUM

Hi, my name is Cane. I am from Serbia and the co-owner of the company Polo-Čačak. Since 1991, we are successfully processing and preserving fruits and vegetables using traditional processing methods. Our high quality, traditional plum products, such as jam and marmalade, can also be found outside the borders of Serbia.

The European or domestic plum (*Prunus domestica L.*) is a fruit that requires mild continental climate. It is very adaptable and can be found at an altitude of up to 1,000 m, but it grows best at 200 to 750 m above sea level. The area of Čačak belongs to the region of Western Serbia, which is the most important region for growing plums in Serbia. Soil and environmental conditions there are extremely favourable for growing these crops. Plum trees require soil that is mostly slightly acid, permeable, fertile and contains organic matter and other minerals and enough moisture in soil and air.

### SERBIA - WORLD'S SECOND LARGEST PLUM PRODUCER

Plums have always been deeply rooted in our traditions and habits. In the Middle Ages, plums mostly grew in monasteries and on feudal lands, from the 18<sup>th</sup> century on, they were planted on farms. Mid 19<sup>th</sup> century, the plum became the most important fruit in Serbia and at the beginning of the 20<sup>th</sup> century, a real expansion took place. Serbia is the world's second-largest plum producer with up to approximately 600,000 tons in a good season. It is estimated that there are about 48 million plum trees in Serbia, of which the *Požegača* tree is the most popular one. The majority of the plums (in some years more than 90 percent) used to be processed into the famous plum brandy *Šljivovica*. In the 1980s, Čačak plum varieties were combined with other foreign varieties, which significantly increased their quality, value and economic importance. New plum orchards with modern production technologies significantly increased engagement of labour in production, processing and marketing.

The fruit quality is essential for processing. The combination of physical and chemical properties and the respective organoleptic characteristics strongly influence the quality of the final product. Plums have a good ratio of sugar and organic acids, a limited energy value and contain a number of valuable bioactive substances for humans, such as vitamins, minerals, enzymes, pectin, cellulose and anthocyanins, among other things. Therefore, this fruit is considered as functional food. Although the main part of the harvested plums is still used for the famous plum brandy *Šljivovica*, the product range and the demands of the market have changed. The hot and cold processing of fresh fruits into jam, marmalade, the traditional sweet of plum, juice or frozen fruits has become more and more important.

The saying “*the house is built where plum grow best*”, shows how important plums are for our country. Many events related to this fruit and its products are organised each year in Serbia, such as the Plum



*Plums have to be cleaned and pitted before preparing “The Sweet of Plum with Walnuts”.*





*Plums are cooked until you have a dense sugar syrup mass in the pot.*

#### HOUSES ARE BUILT WHERE PLUMS GROW BEST

One of the plum products with a long tradition in Serbian households is the *Sweet of Plum with Walnuts*. This traditional dish is part of the cultural heritage because it used to be a way to welcome guests in Serbian houses. This custom is still practiced today, especially in rural areas of Serbia. Plums grew in every Serbian village and housewives made the sweet of plum in the colour of amber. The sweet of plum is a Serbian specialty from selected fresh and untreated fruits, produced in the traditional way by cooking it in an open pot on the wood stove.





## The Sweet of Plum with Walnut

### INGREDIENTS

1 kg plums  
300 ml water  
1,250 g white sugar  
Limewater  
Walnuts

### PREPARATION TIME

35 min preparation  
25 min cooking  
1 day of cooling

### PREPARATION

1. Wash mature plums and peel them with a knife.
2. Remove the seed and put pitted plums into limewater for 20 min.
3. Wash plums, pour excess water and then fill every plum with a suitable walnut.
4. Put the sugar in a pot, add 300 ml of water and cook until it is thick as syrup.
5. Add plums to the syrup and continue to cook for another 15 min.
6. Remove the foam from the top and cover the pot with a clean, damp cloth. The next day, pour it into small jars (make sure the juice covers the plums).

*"Raspberry - Serbian red gold."*

Serbian proverb









**MILOMIR STOJIĆ**  

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**RASPBERRY PRODUCER**

## SERBIA: RASPBERRY

Hi, my name is Milomir and I grow raspberries in the village of Mirosaljci, located in the region of Arilje, Serbia. I cultivate raspberries on five hectares of land with a yield of more than 28 tons of raspberries per hectare. My whole family helps with the production.

From an economic point of view, raspberries are the most important fruit in Serbia. Therefore, locals call it the Serbian red gold. They are worldwide known for their colour, unique taste and firmness. Raspberries are highly sensitive to climate change and the mountainous area of Western Serbia provides the best conditions possible for its cultivation. Low temperature variation, altitudes of 400 - 700 m, a high amount of precipitation during the growing period and relatively high humidity in combination with a specific production technology known as Arilje's production methodology produce raspberries of superior quality. For 90-95 percent of the Serbian raspberries a special kind called *Willamette* is used, followed by the varieties *Meeker*, *Tulameen*, *Glen Ample* (floricane cultivars). We also started to grow primocane cultivars, such as the varieties *Polka*, *Polana* and *Heritage* due to the increased global demand for fresh fruit and the extended harvesting periods. The raspberries from Arilje are protected by the Serbian Patent Office.

### INNOVATIVE PRODUCTION METHODS ENSURE SUPERIOR PRODUCT QUALITY

*Rubus ideas L.*, also known as European red raspberry, can be found in our forests since ancient times. The first important variety of raspberries was introduced by immigrants from America at the end of the 19<sup>th</sup> century, precisely in 1880, when the variety *Marlboro* started to be cultivated in the area of Valjevo, where the locals called it *Valjevka*. Later-on, it spread to other regions, especially to Western Serbia. Nowadays, raspberries are grown on a total of 16,000 hectares throughout Serbia with an average annual production of about

70,000 tons (in the period 2011 to 2014), but in some years, it can even reach 95,000 tons (in 2002). With these numbers, Serbia counts internationally among the top raspberry producers ranking second in 2011, fourth in 2012 and third in 2014.

Raspberries have a good ratio of sugar and organic acids and contain a number of valuable bioactive substances, such as vitamins (especially vitamin C), minerals (potassium, magnesium, iron, copper etc.), enzymes, pectin, anthocyanins,  $\beta$ -carotene, tannins etc. Among these substances, ellagic acid is one of the most important due to its antiproliferative and antioxidant properties. It is a substance with proven benefits against cancer, heart disease, and other medical conditions. Therefore, raspberries can be considered as a functional food. This fruit is very sensitive and susceptible to rapid decay, thus

further processing is very important to preserve its quality. Most of the produced raspberries (over 90 percent) are deep-frozen in large warehouses and the rest is sold fresh or processed into other products. There are different kinds of frozen raspberry: frozen crumble raspberry, block frozen raspberry and whole and broken raspberry.



*Raspberries contain bioactive substances such as Vitamin C, minerals and ellagic acid which has antioxidant properties.*



In recent years, besides frozen raspberry, also fresh raspberries have been increasingly used in the processing industry and at home. There is a wide range of processed products made with raspberries: freeze-dried raspberry chocolate-covered or not, juices and shakes, compote, marmalade, frozen puff pastry with raspberry, raspberry cakes, etc. Especially interesting is the raspberry brandy with 40 vol percent of alcohol. It has exceptional organoleptic properties and preserved its distinctive raspberry aroma. This brandy can be produced from fresh and frozen raspberries. All these products are very popular and have great export potential.

Due to the great importance of raspberries for the region of Arilje, a monument in the honour of the red gold was constructed in the town Arilje. In some years, the region of Arilje grows 5-10 percent of the world's raspberry production, thus Arilje is considered as the world capital of raspberries. Nowadays, the leading production centres (such as Arilje and Brankovana, a town close to Valjevo) organize fairs dedicated to the raspberry and its products – the so-called “Raspberry days”. These events should draw attention to the importance of the raspberry production and processing.





# Raspberry Cake

## INGREDIENTS

3 eggs  
200 ml white sugar  
200 ml all-purpose flour  
200 ml semolina  
200 ml yoghurt  
100 ml sunflower oil  
1 bag baking powder (12 g)  
1 bag vanilla sugar (10 g)  
500 g raspberries  
icing sugar

## PREPARATION TIME

10 min preparation  
30 min baking  
30 min cooling

## PREPARATION

1. Put the egg whites in a bowl, beat them until stiff, add sugar, vanilla sugar, egg yolks, yoghurt, oil, semolina and finally flour and baking powder. Mix all the ingredients to a homogenous dough.
2. Pour dough into a greased baking pan and spread the raspberries on top.
3. Bake at 200°C for 30 minutes, until wooden pick inserted into cake comes out clean.
4. Let the cake cool and sprinkle it with icing sugar.



*"Mushrooms can save our lives,  
restore our ecosystems and transform  
other worlds."*

Paul Stamets







**ELEFThERIOS LAHOuVARIS &  
ATHANASIOS MASTROGIANNIS**

---

MUSHROOM GROWERS

## GREECE: MUSHROOMS

My name is Eleftherios and together with Athanasios, a fellow student at the Agricultural University of Athens, I am the owner of the company *Dirfis mushrooms*. Our farm is located near Mount Dirfis on the island of Euboea, Greece. At this location, we have a substrate plant, 20 mushroom growing tunnels, a modern processing facility and an olive tree plantation. We are both agronomists specialized in mushroom business. Therefore, we bring a lot of expertise in the mushroom production, growing substrates and the commercial cultivation of exotic mushrooms. In 1996, we started growing mushrooms and in 2003, we founded our company *Dirfis mushrooms*. Our goal is to deliver high-quality fresh and preserved mushrooms with unique, recognizable characteristics to domestic and international markets following environmentally sustainable practices and eco-friendly technologies.

We carefully select the primary ingredients for the preparation of our substrates. For the production of our high-quality oyster mushrooms (*Pleurotus ostreatus* and *Pleurotus citrinopileatus*) we mainly use chopped wheat straw (*Triticum aestivum* L.), cottonseed hulls (*Gossypium hirsutum* L.) or a combination of both. Approximately 20 tons of incubated substrate and 130 tons of spawned substrate are produced on a weekly basis. On a total surface area of 5,700 m<sup>2</sup>, both grey and yellow oyster mushrooms are cultivated in aerated growing rooms maintaining high hygiene standards. Each year we produce 300 tons fresh grey oyster mushrooms, 35 tons yellow oyster mushrooms and 20 tons shiitake (*Lentinula edodes*). *Dirfis Mushrooms* is the first company to introduce in Greece the term 'filet' for mushroom leaves with a length of 20 to 40 cm. We investigate, support, promote and point out the nutritional value of every product that we put on the market. Additionally, our products are each year extensively tested at special laboratories to assure high quality and food safety. Every single person and group is welcome to come and visit the farm and get-informed about mushroom cultivation and our products, our doors are always open.

During the visit, you will feel our dedication and enthusiasm for the science of agricultural mycology and the non-negotiable quality terms *Dirfis mushrooms* is certified by ISO 22000:2005. We have met all specified international requirements for food safety management systems and have demonstrated the ability to control food safety hazards to ensure that food is safe at the time of human consumption.


One of the company's main goals is to develop and introduce new products that are considerably different from those already in production. In particular, we would like to demonstrate the nutritional and bioactive ingredients of mushrooms. To achieve this goal, we do constant research, elaborate new production procedures and modernize the production and processing lines. *Dirfis Mushrooms* is the only company in Greece that runs, in collaboration with the Agricultural University of Athens, a spawn production programme. In cooperation with scientists from the University of Hohenheim, Germany, the company also develops an innovative solar drying technology, where mushrooms benefit from the natural enrichment with vitamin D.

*Dirfis mushrooms* also has a well-organized network of mushroom pickers, who have the right expertise to gather wild mushrooms, such as ceps, morels, chanterelles, black trumpets and Caesar's mushrooms, found in different Greek forests. These products are very important for commerce and gastronomy. Our wild mushrooms are hand-picked in a sustainable way and within their natural environment by our agronomists. They grow far away from industrial pollution under fir trees, oaks or beech trees next to wild roses, strawberries, thyme, oregano and a plethora of rare indigenous herbs from the Greek flora. Immediately after harvesting, we sort, clean and dry them, using the most eco-friendly technology possible: the sun. Solar drying has the advantage that it prolongs the shelf life of mushrooms. It maintains their quality and nutritional value and intensifies the flavours.

Both cultivated and dried wild mushrooms are valuable ingredients of several traditional dishes. There are over a hundred different traditional and innovative mushroom varieties designed by food experts, nutritionists and chefs. These include mushroom soups, pasta with mushrooms, mushroom risotto, medicinal mushrooms, marinated mushrooms, truffle products and mushroom snacks, such as mushroom chocolate and mushroom cookies.

*Oyster mushrooms grow on a substrate based on wheat straw and cottonseed hulls.*





*“Solar drying is a traditional way for preserving mushrooms and an innovative approach for the natural enrichment of mushrooms with vitamin D.”*

Dimitrios Argyropoulos



# IMPRINT

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20, 23  
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162, 164, 165  
Michal Trčka: p. 1, 106, 108, 109  
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Slobodan Nikolic: p. 166  
Radosav Cerović : p. 152, 154, 156,  
157, 158  
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Rocío Córdoba: p. 15, 18  
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University of Hohenheim: p. 31  
Zoryanchik: p. 32  
Dominik Martin: p. 34  
INRA: p. 36, 39  
Sohadiszo: p. 50  
Hanneke de Boer: p. 52, 57  
Chris Kik: p. 54  
Noor Bas: p. 58  
Irochka: p. 60  
Wageningen University and  
Research: p. 62, 65  
Linh Nguyen: p. 66

Oskar Eyb: p. 68  
Joachim Burkart: p. 70  
Dimitrios Argyropoulos: p. 72, 74, 76,  
77, 174  
Rj Grant: p. 78  
Gérard Devènes: p. 80, 85  
Danilo Christen: p. 82  
Carole Parodi: p. 84  
Ld1976d: p. 86  
Lionel Abrial: p. 88  
Diana Di Gioia: p. 90, 93, 94  
Łukasz Jakubowski: 112, 118, 128,  
136, 141  
On behalf of Peter Raspor: p. 98  
Peter Raspor: p. 96, 100, 101, 102, 103  
University of South Bohemia: p. 104  
Rybářské Sdružení České Republiky: p. 109  
Václav Nebeský: p. 110  
Anna Kołodziej: p. 114, 116  
Dorota Łazęcka: p. 120, 125  
Barbara Michalczuk: p. 122, 126  
Krystian Szudyga: p. 124  
Monika Markiewicz: p. 130  
Peter Wendt : p. 133  
MARK Co.: p. 138, 141, 142  
Tomasz Niewęłowski: p. 144, 146, 148,  
149, 150  
Dirfis mushroom: 168, 170, 173



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Susanne Braun



 **trafoon**

*Traditional Food Network to improve the transfer of knowledge for innovation*

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