ONPULSE ONPULSE

Growing Regions

Bean Growing Regions
Chickpea Growing Regions
Lentil Growing Regions
Pea Growing Regions

Product News

Growing Information

Pulse Plant Characteristics

Dry Peas
- Plant grows 30-36 inches tall
- Contains 4-9 peas per pod

Lentils
- Plant grows 24 inches tall
- Contains 1-3 lentils per pod

Chickpeas
- Plant grows 15-19 inches tall
- Contains 1 chickpea per pod

Dry Beans
- Plant grows 13 inches tall
- Contains 4-7 beans per pod

Growing Season

Planted early May
Harvested in their dry form mid-August
Chef Memories

On my very first day in the world I realized that the most wonderful dish I would ever taste would be the one I would later prepare for my own child. I have now made so many脉冲 dishes as well as the annual pulse dishes in a variety of exciting, satisfying ways. My spirit lifted once again. As we moved into Holland the experience of the rich and diverse culture. Why? Because for most of the trip I was miserably cold, could not feel my fingers or my toes, and just wished for it to be over.

Pulses were not staple menu items in my house growing up. When I was very young, my mother quit the piano teaching business and went back to college. When he did this, my mom went back to work to support the family (my two younger brothers, my parents, and myself!). Consequently there was not a lot of time to cook on the weekdays. Weekends were busy with errands, activities and household chores. So when I was asked to come to the table over for most of the day. The texture and the flavors are still in my memory, it’s something that I have now made so many times for my own child.

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This was my first real exposure to this rustic, delicately decorated Provencal bistro was an eye opener to the food neophyte that is me at the time. Not having a clue what to order I was encouraged to try the cassoulet. I immediately fell in love with the salty duck confit, pleasantly chewy sausisson a la sauce sole and braised pork shoulder all bound together in the rich and creamy white bean stew with a crispy breadcrumb and butter topping. Now I look back and realize that this meal was one of the best meals I have ever had. I was so surprised to see that we were preparing a red lentil soup, and then I got to sample this sumptuousness of this stew, I immediately began to seek out lentil soups, flageolet stew, and hummus to make for my dinner. This was my first real exposure to this ritual behind it. Made from chickpeas, potatoes, eggs, onions, and what’s in “Yiddish was called flaxen (one of the cheapest) cuts of meat from old days, but which today you know as the premium beef short rib), this meal served four of us. As a former chef, I’m always looking for new flavors to try in my kitchen.

PRoDuct NEWs

Sarah Linkenhelk

Growing up in Germany, the country of hearty, hot, and filling food, lentils were most definitely a staple in my mom’s kitchen. There was nothing better than my mom’s piping hot, perfectly thickened lentil soup with speck and sausages. Since I now live in sunny California, one of the requests I have every time I go to visit my family is the lentil soup which made the long dark winter so much more bearable. A common companion of lentil soup is lovage (“Liebstoeckl”), an herb that is said to aid digestion. My mom grew it in our garden and it was used as garnish for other pulse dishes as well as the annual Christmas goose.

Bill Briwa

My pivotal moment with pulses came a few years after college when I was in Seattle visiting my parents. I decided to meet up with an old friend from high school for dinner, and she picked a cozy neighborhood spot called Mopot. While we were perusing the menu, my friend immediately asked the waiter if he could start us with the “caci.” “Start with the caci,” I said. “Italian for chickpeas, and the appetizer was a small cast iron serving of them, oven-roasted. When they emerged from the oven, I was stunned to see these little heads glistening, rubbed in olive oil and flecked with salt. For so long, my experience with chickpeas, which clearly hadn’t been given the proper treatment, was a dry, starchy consistency that left you thirsty. With these caci, though, I remember being amazed by their incredible texture of both crunchy and creamy, their warmth and freshness, right out of the oven, and the aromatic mix of garlic and fresh sage. This dish really redlined chickpeas for me, and I have been in love with them ever since.

Almir da Fonseca

I am a Brazilian-born chef, and while I was growing up in Brazil I was exposed to pulses in our kitchens and at the dinner table. A festive memory is of my mother and father, both great cooks. Both made amazing pots of hearty black beans for our family at the dinner table, always served with rice and farofa de ovo (egg farofa — our amazing manioc flour tossed with herbs and broken eggs). The next morning and many other mornings for breakfast before going to school, my mother would take the remaining cooked black beans and make a silky-smooth pureed soup, served warm with finely chopped hard boiled eggs and fresh cilantro. Wow, what an amazing breakfast! — that meal would hold us over for most of the morning. The texture and the flavors are still in my memory, it’s something that I have now made so many times for my own child.

David Kamen

Dinner was a huge letdown about this restaurant and was excited when a few friends invited me to join them after our shift ended.

Rebecca Peizer

Being a half-Israeli, I grew up eating a variety of Israeli recipes from falafel, the famous fried chickpea balls, Mug엄, a lentil and rice pilaf with fried onions, and my first favorite, Cholent, the dish we broke Sabbath with every Saturday night.

Zach Minot

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A subgroup of legumes, a pulse is the dry, edible seed of a plant from the Leguminosae family. Pulses include lentils, dry field peas, chickpeas, and dry beans.

Variety Guide

All pulses are seeds, and all seeds have a remarkable construction in which they are essentially food that exists to get a plant started. Packed with dietary fiber, vitamins, iron, protein, phyttochemicals, antioxidants, and other nutrients, pulses are far from humble pods; they are nutritional powerhouses. With all that inherent goodness comes yet more exciting attributes: a wide, vibrant variety to choose from and a world of culinary opportunities.
Global Inspirations

Even with such a large variety of pulses available, we often overlook that each pulse has its own unique flavor profile, aroma, texture, and cooking time. Each pulse has its own fingerprint and brings subtle differences to the plate.

The versatility of pulses has allowed chefs and cooks to experiment and create dishes with all flavor profiles and cuisine styles for centuries, with foods that offer great textures and mouth feel, smells and aromas, temperatures from hot to cold, colorful combinations, and of course spicy dishes.

Pulses hit on all of the five main tastes, from sour dishes and pulse salads with vinegar-based dressings, to salty dishes flavored with salt pork, salt cod, or anchovies to dishes cooked with bitter greens like escarole. Some cuisines and cultures even offer sweet pulse dishes, such as desserts with pulses and mushrooms and even fermented bean dishes in Asian cookery.

Pulses have a major place in global cookery, easily combining with flavorful ingredients commonly used within certain cuisines. Pulses can be used in a variety of ways, with several characteristics, applied in many forms, resulting in unique flavors and textures from cuisine to cuisine (see list at right).

Practicing cookery of pulses within global cuisines while using basic flavor principles and characteristics will help cooks to recognize and experience the tastes, flavors, textures, and authenticity of classic international dishes.

SOME OF MY FAVORITE PREPARATIONS AND FLAVOR PROFILES

1. CHINESE
   - Flavored with soy sauce, ginger, garlic, scallions, sesame oil, oyster sauce, and fermented soy beans

2. JAPANESE
   - Flavored with soy sauce, ginger, scallions, sesame oil, fermented soybeans, dashi, and sea vegetables

3. MEXICAN
   - Flavored with lime, cilantro, chiles, cumin, roasted ingredients, tomatoes, and chocolate

4. MEDITERRANEAN
   - Flavored with olive oil, olives, tomatoes, garlic, saffron, herbs, wine, citrus, and nuts

5. MOROCCAN
   - Flavored with harissa, preserved lemons, ras el hanout, dried fruits, honey, or mint

6. FRENCH
   - Flavored with butter, herbs de Provence, leeks, mustard, shallots, garlic, or wine

7. LATIN
   - Flavored with cumin, coriander, lime, peppers, dried beef, pork, cilantro, tomatoes, and other spices

8. ITALIAN
   - Flavored with olive oil, basil, garlic, Parmesan, balsamic vinegar, lemon, wine, or oregano

Blue Zones: The Pulse of Longevity, Health, and Deliciousness

Hidden in plain sight around the globe, researchers have discovered distinct community centers where the local population lives measurably longer lives than most, without suffering the ravages of aging. These wellness anomalies, highlighted on the world map, have become known as the Blue Zones — currently there are five.

1. Sardinia, Italy
   - Demographers found the largest concentration of male centenarians in the world in small mountain villages.

2. The Islands of Okinawa, Japan
   - With a low incidence of cancer, heart disease, and dementia, women here are the longest living on the planet.

3. Loma Linda, California
   - Researchers studied a community of Seventh-day Adventists and discovered that they live an extra 10 years compared to the average American nationals.

4. Nicoya Peninsula, Costa Rica
   - A Latin American hot spot for longevity where residents are twice as likely to reach 90 compared to Americans, who, on average, live to be 78.8 years old.

5. Icaria, Greece
   - One in three lives into their nineties with very low incidence of the diseases that plague modern Americans.

Among the lifestyle habits shared by all of the Blue Zones is a vegetable-centric diet. Vegetable-centric dining has been gaining traction in the U.S. for the last 20 years, and for good reason. Vegetables are healthy, colorful, linked to the region and the season, inexpensive, varied in flavor and texture, sustainable, ethical, and highly versatile. It’s encouraging now to see longevity and health research that supports this blossoming trend.

In the Blue Zones, pulses are filling the void as animal protein moves to a supporting role for the sake of health, longevity, and economics. All manner of lentils, chickpeas, peas, and beans make regular appearances on Blue Zone menus offering an inexpensive source of nutrient-dense protein that is readily available, versatile, and satisfying.

In the Sardinian mountain village Blue Zone you might find a humble vegetable soup, akin to minestrone. There is a clever recipe for just such a soup built around a pot of cooked chickpeas. Imagine taking a heavy pot and layering a selection of seasonal vegetables, cut into bite-sized pieces, along with cooked chickpeas and their seasoned cooking liquid. Anoint all with good olive oil, cover the pot and bake this until tender and aromatic, 30 to 45 minutes. This soup couldn’t be easier to prepare and welcomes a broad variety of seasonal vegetables as they become available.
When renowned Chef Alice Waters first started using produce grown by Chino Farm in the San Diaguito Valley, it was due to her insistence that the ingredients she used for her menus from breakfast to dinner. It’s not unusual to find plant-based diets found on menus today. She sees the future of his crops being higher in protein and having the versatility to be used in more innovative ways. For example, lentils as meat substitutes in classic dishes such as his wife’s famous lentil lasagna, or lentil flour used in baked breads.

Cindy Brown, a sixth-generation pulse grower for Chippewa Valley Beans in Wisconsin, says that her 3,000-acre family farm, which began in 1858 and has been growing and processing beans since 1969, is always looking to “do beans better.” Where other pulse growers might need and conditions for optimal results, her dark red kidney beans increase their depth of color and retain moisture better when intermittent rain falls right before harvest. Once considered a specialty crop, sales grew with the rise of salad bars and Tex–Mex cuisine, which boomed in the 1970s. Cindy describes her beans as “beautiful” due to their unbroken skins, which is a result of dedicated special machinery used to harvest the crop carefully, the sandy soils in which they grow, and the moisture content they retain from the rain. As a food lover, Cindy is devoted to understanding how chefs can use her products better. As a grower she is particularly interested in ongoing research being done on the functionality of pulses in different product forms, whether whole, puréed, flour, or fractioned. One of her favorite ways to prepare beans is a butterbean and corn chowder, a traditional caramel custard in which she includes a layer of her white kidney beans.

Among a growing list of celebrity chefs celebrating growers is Mehmet Gürs, a pioneering chef in Turkey who uses lentils grown in Thrace. According to Gürs and his New Anatolian Kitchen Manifest: “No Farmer, No Food, No Future,” the consideration that Chef Gürs gives to his lentil grower, who may only sell him one or two sacks of her lentils depending on the quality of the harvest, is to showcase the terroir in which her lentils grow, as well as her story about why she grows her lentils in the first place. Almost 40 years after Chez Panisse opened its doors, the grower, as much as the chef, plays an important role in today’s menus. Pulse growers are driven by many current culinary trends, helping to achieve more sustainable food practices, and even introducing us to new dishes, flavors, and cuisines. It makes good use of the chia seed’s cooking liquid, which should never be discarded as it makes a full-flavored and rich stock substitute. When exploring Costa Rican cooking, you will quickly discover a foundational dietary truth known as the “three sisters,” a symbiotic approach to growing vegetables. Historically gardens were grown with corn planted between pinto, navy, or other beans, so that the beans could climb the corn stalks like a trellis. The beans, which fix vital nitrogen into the soil, would grow synergistically with the corn — a notoriously heavy-feeder that might otherwise deplete the soil. And squash plants were placed strategically between the rows so that the large leaves would keep weeds down and maintain moisture in the soil. From a nutritional standpoint, beans, corn and squash seeds (the three sisters) represented ready, quality protein. Even today, pulses define Latin American cooking, appearing daily on menus for breakfast to dinner. It’s not unusual to find a Torta Ahogada (a Mexican “drowned” sandwich) from a street vendor in Mexico, with cooked beans spread across the bread along with cheese, avocados, and pork or chicken before being dipped wholly and completely in a broth chipotle sauce. Pulses on a sandwich may sound uncommon, but search it out and give it a try. It may be messy, but it is certainly delicious.

Blue Zones strategies can certainly be exported across borders. Tapenade, a staple from the south of France, is a dip of capers and olives. It is great on cold fish and grilled vegetables or spread on warm, crusty, grilled bread. What you may not know is that for some the flavor is just too intense. To sat this right, try adding a coarse purée of cooked lentils to downplay its “enthusiasm.” Just right! And by happy coincidence this move boosts nutrient density. It is a win-win nutritional strategy that has no downside.
Snacking is considered a habit for many in today’s busy world, but it has also become one of the latest trends in food service. Our fast-paced society demands that our eating patterns change to accommodate our schedules. Look at the cashier counter at your favorite coffee shop, corner market, or grocery store and you will find an array of easy-to-consume, grab-and-go offerings that range from snack bars and pastries to sandwiches and smoothies. Typically, these options are not as healthy as one may desire, but they are easy to consume at any time of day, and that is why there is such a high demand for them.

In a food world increasingly interested in a plant-based diet, it seems natural to phase in more healthful choices and start avoiding the usual suspects of the snacking world. Protein-rich and high in fiber, pulses are a natural fit for this category of dining because they offer more nutrients than almost all the other ingredients in these snacks combined. It is becoming more and more popular to see protein-rich beverages at the checkout stand at your local supermarket. Pulse flours and proteins of all kinds, or simply puréed pulses, can be used in smoothies the same way that whey protein is used. This makes these beverages available to a wider market of consumers who may shy away from dairy. It also offers a potentially longer shelf life. Pulse flours can also be used in the production of sweet and savory snacks. The flour of various pulses can be mixed with all purpose wheat flour for a more nutritious yet just as tasty biscotti, with corn flour for more nutrient-dense tortilla chip, or even with whole wheat flour in crackers.

Granola and snack bars made of nuts, seeds, dried fruits, and chocolate are also very popular grab-and-go items. Lentils can make wonderful additions to a snack bar. When cooked and roasted, they have the similar pleasing texture as nuts and seeds, plus they add an earthy flavor reminiscent of cocoa or chocolate. And because of this, pulses have also found their way into healthier dessert snacks, especially those that contain chocolate. Take the Lentil, Avocado, and Peanut Butter Brownie (recipe on page 30) for instance. It has the same fudgy consistency of the traditional brownie, but without the butter or eggs, and with much more protein. This concept can be taken a step further and the same ingredients can be put into a blender with a banana, some dates, and your favorite juice for a delicious and nutritious beverage.

Aside from satisfying hunger, the particular thing about most snacks that makes them so craveable is their texture. Bags of crispy pretzels and crunchy chips are easy and affordable snacks that can be enjoyed at all times of the day. A great characteristic of certain pulses is that they are able to be cooked a number of ways that change their texture. Depending on the cooking technique, crispy and crunchy textures are easily achievable. Cooked lentils, for instance, can be crisped in a pan with a little oil to create popped lentils that, once cooled, can be seasoned with a variety of seasoned salts that make them just as addictive as any bag of chips. Soaked chickpeas can be fried in olive oil before being seasoned with BBQ spice to become a great snack. Ultimately, the added nutrient density of these snacks satisfies both hunger and the need for craveable texture at the same time. They provide high satiety, especially when compared to traditional snacks.

The market for using pulses in the grab-and-go sector of the food industry is wide open and offers tremendous profitability. If operators are willing to look outside the box of conventional, typical snacks and beverages and look towards pulses to provide both versatility and nutrition, the business opportunity is enormous. Consumers want interesting and healthy food throughout the day. And according to most trend reports in the food industry, snacking as a meal option is not going away any time soon — if ever.
Today’s health news is a cacophony of sound bites coming from all angles telling us to increase protein intake but avoid animal protein, and telling us that fat is not as bad as we thought. Except for animal fat. Aren’t all proteins the same?

As consumers become more savvy, they will begin to understand — as many people in food service already do — that there absolutely are differences between types of proteins, fats, carbohydrates, and even calories. This new thinking suggests that the numbers of calories that come from each nutrient group are less important than the quality of the calories from that group. Animal proteins are often associated with saturated fats and do not offer any kind of dietary fiber. Plant proteins are less likely to be associated with saturated fats, and often do contribute dietary fiber, which is just as important a nutrient.

This is not to say that animal proteins are to be avoided. Rather in the climate of changing menus, creating new concepts, and responding to consumer requests for more interesting regional dishes with bigger and bolder flavors, there is an opportunity to consider a Protein Flip.

The Protein Flip is very simply the switching of some or all of the animal protein for plant protein in a dish. While there really is no substitute for a big steak on the plate, the idea is to begin to rethink the plate away from a traditional center-of-the-plate protein.

American menus are often characterized by the center of the plate, typically a large piece of animal protein (pork chop, steak, chicken breast, salmon fillet, etc.) and the rest of the plate is then built around it. In other countries and cultures, animal protein is more often used as a less central ingredient, garnish or seasoning. Often due to cost or scarce availability, animal protein portions may be limited, but can still be the focal point of the dish.

Imagine instead of a 8-, 10-, or 12-ounce rib eye or strip steak on the plate, you were presented with a rich savory ragout made of kabuli chickpeas, caramelized onions, and roasted mushrooms with three or four thin slices of grilled marinated strip, or perhaps skirt or hanger steak fanned over the top. This modification offers all of the same savory grilled and caramelized flavors, and even adds some interest in the form of other textures, while reducing saturated fat and increasing fiber. This is a great example of the Protein Flip.

Pulses are great plant-based protein alternatives, and are often described as flavor sponges (see page 20) because they absorb flavors from other ingredients that they are cooked with. This allows them to be customized to specific dishes or be kept neutral to fit a variety of applications. When thinking about flavoring pulses, keep in mind that this process can happen long before cooking begins. Because pulses are used from their dry state, flavor can be added during the initial soaking stage. Dry chickpeas and beans will absorb their weight in water during soaking. Try seasoning the water or creating a lightly vegetable stock instead of using plain water. The soaking liquid should be cold so prepare it in advance and cool properly before soaking beans. Be wary when using salt or acidic ingredients during soaking as they will interfere with the way pulses absorb liquid and inhibit the cooking process.

Think about the color and flavor of the meat being replaced when selecting a pulse substitute. Whole yellow peas and large white broad beans make a great alternative to chicken. Whole red lentils or red kidney beans can stand in very nicely for pork.

One easy way to make the change is to keep the dishes familiar. Offerings such as chicken bourguignon, vegetable paella or chickpea jambalaya are great across-over dishes that appeal to those looking for animal protein. Identifying global dishes that traditionally feature pulses and adjusting their flavors or styles offers another approach. Dishes from India and northern Africa are often built on pulses due to their abundance in the regions. Here perhaps, adding small amounts of a familiar animal protein may be what the dishes need to make them more interesting to meat lovers.

As with the steak example, there are a number of pulse preparations that can be used in the center of the plate to reduce the amount of meat. Lentil ragouts, purées, and even flavorful lentil cakes make smaller amounts of animal protein seem more alive and impactful. Use these preparations to elevate the meat off of the plate, placing them closer to the eye will make them seem larger. Because you are using less, the meat that you are using can be seasoned more boldly.

Salads provide another platform for the Protein Flip. Pulses are very easily substituted for chicken in a number of salad preparations. Try chickpea falafel in lieu of fried chicken tenders or shrimp on a Caesar salad. In egg salad, as much as 25% of the egg yolks can be substituted for white bean purée reducing calories and saturated fat. In creamy salad dressings, bean purée can be substituted for eggs and a portion of fat.

As Fast Casual 2.0 matures, reinvented sandwich menus are making their way across the industry. Sandwich spreads based on pulse purées are an innovative way to introduce interesting flavors. Fat-based spreads like mayonnaise tend to mask flavors. Pulse spreads themselves can be full of flavor and enhance the identity of the other ingredients.

Consider adding a hummus bar to your menu, leveraging pulse purées in a myriad of flavors. A single flat bread recipe can be “multitasked” to create a variety of complimentary accompaniments. Imagine instead of giving away bread and butter, selling flat breads and spreads.

If you are using canned pulses, don’t let the liquid go to waste. This liquid, known as Aqua Faba, is very high in protein and can be whipped up into a thick, stable foam. Many chefs with vegan clientele are using this foam in lieu of egg white meringue to create macaroons, to lighten batters; and to create the base for some puddings. Because the proteins in the Aqua Faba are already denatured and coagulated during the canning process, there is no thickening ability. However, this can be overcome by combining with starches like tapioca, or other proteins like pea flour.

Swapping pulses for animal protein is not just a health and wellness issue. Using more pulses can provide large cost savings to any operation. In an earlier example, substituting falafel (chickpeas at $0.60/lb) for chicken breasts ($1.30/ lb) can save nearly $0.15 per portion. While perhaps not impressive on one portion, the $15.00 savings on 100 portions is significant.
Salads, whose platform is chopped tomatoes and onions, can have hundreds of variations with the addition of beans, mango, corn, and cheese. And nachos, a huge food trend according to Flavor & the Menu, is a platform itself just waiting for traditional salsas and exotic ingredients to top each tortilla chip. For soups, the platform is the broth to which any number of noodles, meats, and vegetables can be added. For tomato sauce, and its hundreds of chunky, garden vegetable, cheese, and vodka variations, the platform is the ground tomatoes. And for granola bars, it is the oats, nuts, or seeds to which chocolates, dried fruits, and even trendy chili peppers are added. It is possible to create hundreds of variations of the same idea using these platforms, but it is also possible to use the platforms to create completely different dishes altogether.

Pulses, in their many forms, are perfect to use as a platform in any food service operation. They are simple and affordable, and they are a recognizable building block for menu development in any operation.

Pulses are also sponges for the flavors a cook pairs with them. They can be cooked in a flavorful liquid, or blended with herbs, spices, vegetables, and flavorful oils. Cooked pulses can also be puréed for hummus, soups, sauces, desserts, and breads. Pulses provide a great source of protein, but also have a longer shelf life in the refrigerator than most animal proteins. They can be cooked fresh for future use once cooked. Examples of pulses as platforms can be seen in some of the nation’s leading restaurant concepts including Mediterranean, Indian, or even Southwestern and African Cuisines.

Excitement can be generated for new preparations by showcasing the bounty of the season through Limited Time Offerings (LTOs). Pulses are not seasonal per se, but the ingredients they are offered with offer many opportunities to focus on the local growing season or cutting-edge food trends — which tracks LTOs around the world and is run by the Datassential, a leading restaurant research company. We examined the Pulse Bar, which tracks LTOs around the world and is run by the Datassential, a leading restaurant research company. We examined the Pulse Bar, which tracks LTOs around the world and is run by the Datassential, a leading restaurant research company.

Chickpeas, a fast-casual Mediterranean franchise based in Davis, California, uses chickpeas across their menu, and offer six different menu options for toppings — such as mushrooms, onions, beans, and grilled meat to pair with their hummus, all at different price points. As a franchise, owner-operators may have the ability to offer regional and seasonal flavors that suit the needs of their local customers. For instance, late winter in California is Meyer lemon and blood orange season, which are natural and fresh flavors that could be offered for a limited time. Salads can also take on a seasonal or LTO approach by offering chickpeas paired with tomatoes, grilled eggplant, and cucumbers in summer, and roasted onions and winter squash during the fall. Or, like the pumpkin spice latte served in coffee houses across the nation, perhaps a “Fall Harvest Hummus” that uses chickpea purée as a platform to which roasted pumpkin purée is also added.

Certain food service operations, such as Chipotle Mexican Grill or MOD pizza, run on a Build Your Own (BYO) model, where a platform is provided and flavors and meat are added. Pulses can customize any number of fillings or toppings to make their own. This has been a successful model even on salad bars, where the different pulse and salad greens are the platform to which dozes of different fillings can be mixed in to fit the customer’s desires and help increase cravability. Pulses are a natural fit for the platform of the BYO operation because they can be cooked ahead for days of usage, are easy to store, and customers can choose to include the flavors and textures they wish and make an exciting meal.

Imagine a BYO Bar that has an array of cooked whole beans, chickpeas, and lentils, as well as a variety of flavored dressings — which tracks LTOs around the world and is run by the Datassential, a leading restaurant research company. We examined the Pulse Bar, which tracks LTOs around the world and is run by the Datassential, a leading restaurant research company. We examined the Pulse Bar, which tracks LTOs around the world and is run by the Datassential, a leading restaurant research company.

This delivery of pulses also fits very well into an LTO strategy because ingredients on the Pulse Bar can change with the seasons and include specialty flavors and ingredients that are only available locally, may fit a certain time of year or may follow the latest food trends. Another top trend according to the trend tracking magazine Flavor & the Menu, is “Chickpeas Go Chic.” They attribute consumer interest in chickpeas to the rise in popularity of the plant-based diet, the blossoming love affair with Eastern Mediterranean, Middle Eastern and Indian cuisines, and forward-thinking menu development of bowl or salad concepts and bar bites. Mediterranean food is known for its wide use of chickpeas, therefore a large batch of this cooked pulse can be used in anything from bar snacks like chickpea fries to salads, hummus, sandwiches, wraps, soups, and entrees.

Another food trend that is good news for the Pulse Platform, according to the National Restaurant Association, is “Authentic Ethnic Cuisine.” These days, consumers are traveling more often to and more exotic places than ever before, and they are much more aware of authenticity when they dine at restaurants back home. An example of a pulse-forward cuisine is Indian food, which is well known for its use of lentils. In San Francisco’s Bay area, there is a small chain of “authentic restaurants known for their lentil preparations, called Udapi Palace. They use lentils to make their famous dosa pancakes, fried lentil doughnuts called vada, rice and lentil patties called idli, and spicy lentil soup called Sambar (which they serve also as a sauce). A very busy restaurant like Udapi Palace wouldn’t need to cook lentils every day, but rather once or twice a week since lentils are resilient, stable, and do not change in texture or flavor when stored properly.

With so many cuisines around the world — Indian, Pakistani, Middle Eastern, Mediterranean, Latin American, and more — built around pulses as a primary ingredient, using pulses as a base is a great strategy.

Pairings and Platforms

BY FRANCESCA PEZI

Consumers love the ability to make choices about the foods they eat. Take, for instance, the sheer number of different types of salsa, canned soups, tomato sauces, or granola bars that line the shelves of supermarkets. There are so many choices that it is almost baffling. Yet, what makes each of these products so accessible, in terms of creating as many varieties as there are, is the fact that each of them are made from a very basic formula that can be replicated, added to, and subtracted from to create new and exciting creations. This base formula or individual ingredient is what we call a platform. It can be used in restaurant and foodservice operations very successfully to efficiently create excitement and diversity.
What is a Flavor Sponge?

From the Stone Age to the Middle Ages, and even today, the preparation of pulses has not changed drastically. Traditionally — lentils, dried peas, chickpeas, and dried beans — were mostly eaten as porridge and oftentimes combined with grains such as barley and wheat. While the result was nutritious and filling, it often wasn’t very flavorful. Animal protein was an expensive and rare addition to peoples’ diet; more exotic ingredients had yet to be introduced to common food culture. Today, it seems hard to imagine indulging in a nutritious bowl of porridge without the exciting addition of produce, spices, or other condiments widely available on the market today.

All pulses, whether lentils, chickpeas, beans, or peas, have their own distinct flavor. Depending on how it is being processed, whether whole or split, the flavor can be heightened or muted. The flavor and texture attributes of various types of beans and peas range from meaty, bold, and nutty (such as the red kidney bean) to velvety and creamy (found across the entire family of white beans). The larger the bean, the better flavor retention it has when cooked with other ingredients.

Without a seadcoat, split red lentils break down to a purée consistency when cooked over a short amount of time. Texture plays a very important role in how we perceive flavor.

By examining cuisines that heavily rely on pulses, we can determine if it is the pulse or the cooking method that allows for maximum flavor absorption.

Many cuisines around the world use pulses as the center of their plates, relying on their flavor absorbing ability to create a delicious meal. Familiar examples include Brazilian feijada cooked with black beans and smoky pork, Indian dal spiced with curry, or Middle Eastern falafel rich with herbs and garlic. Recipes from these regions offer a bounty of flavor combinations for all kinds of pulses to absorb a vast variety of flavors and ingredients. Baking, stewing, and simmering are the most effective cooking methods for pulses to absorb flavor. They act like a sponge absorbing the cooking liquid. This can be as simple as flavored stocks or even water with basic aromatics like carrot, onion, celery, thyme, garlic, and bay leaves. When using store bought stocks refrain from using those flavors of the product develop slower and with greater depth.

Want to bring the natural flavor of the pulses into the foreground? Pulses can be slow cooked in plain cooking liquids until almost tender and then finished with a flavored seasoning toward the end of the cooking process. This will ensure they are fully cooked and will still combine with any beautiful flavors added at the end of cooking. Chef Hemant Mathur of Tuti restaurant enjoys cooking lentils with a seasoning of ginger, garlic paste, tomato purée, salt, chilli powder, butter, and cream. He says they are so rich and delicious that it is one of the most popular items in his restaurant. This method also works for cold preparations. The pulses are cooked and tossed in vinaigrettes or fresh herbs and spices when warm. The warm temperature helps the flavors evolve and combine with the earthy notes in the pulses. After being cooled, they can then be served as a stir-fried lentil salad or as an addition to a leafy greens salad.

Chef Pam Brown, author and visiting instructor at the CIA, says “I really like cooking lentils until they’re soft, then combining them with vegetables —

Lentils are naturally earthy and robust. The flavor of lentils is found in the seadcoat — therefore, whole lentils will tend to have more flavor than split red lentils because the red lentil seadcoat is removed. Whole lentils therefore may be able to carry stronger, bolder flavors such as curry pastes, vinegar, mustard, or chili flakes. Split lentils may be more suitable for more delicate flavor additions like coconut milk, miso, and cinnamon.

With high sodium content; pulses tend to stay firm during the cooking process when exposed to too much salt or too much acid. The trick is to add salt to the liquid just before the pulses are done and let them cook just a bit more in order to become fully cooked and properly seasoned at the same time. Using a clay pot as cooking vessel is preferable to a metal pot. The heat in a clay pot transfers at a slower rate and lets the especially onion and mushrooms but also ingredients like broccoli — and pressing the mixture into a loaf pan and baking it. “A meatball” in this fashion can contain little or no animal protein, or can be shaped into hamburger patties that can be seared like meat for a blast of umami.

Pulses can be simmered in a mildly flavored liquid and then puréed and finished with a variety of additions. Hummus has found a large following in recent years as an excellent dip and spread. Consider cooking chickpeas and flavoring hummus afterwards with curry, garlic, lime juice, and onions. Or turn a simple hummus into a delicious dip by adding basil chiffonade, diced cucumber, crumbled feta, and red onions. Smooth purées have an incredible ability to offer great depth of flavor and texture.

In Turkey, crispy baked chickpeas are known as Iskembe. From the spicy seasonings such as zatar, Parmesan, garlic, malt vinegar powder, or flavored oils can all be added for intense flavor enhancements.

Pulses can also be ground into flours to provide an exciting option to infuse preparations with additional flavor.

Chickpea flour is being used for a variety of staple preparations in parts of Asia and Europe. Paneis is a delicious snack from the South of France. It is made from chickpea flour cooked just like polenta, cooled, cut into a variety of shapes and then fried. Italians prepare farinata, an unleavened pancake often served as an accompaniment to salads or sometimes just on its own. It can be used to create thin, nutty sweet wraps which then can be filled with pumpkin purée, avocado, spinach, and quinoa. Blogger Malika Basu prepares “sudha,” light and satisfying chickpea crepes with cilantro, green chilli, and ginger, and serves them as a quick and simple breakfast item.

While there are endless options for using pulses in savory applications, consider using pulse purées and flours for desserts and baking purposes. Quinola de Feijao from Portugal are a popular sweet pastry made with a filling of white bean purée, butter eggs, sugar, ground almonds, and vanilla. These especially moist and sweet tarts are a delightful treat. Using lentils or black beans for breads and chickpeas for a fall spiced apple cake are wonderful dessert applications using pulses. The smooth texture of pulses opens the pulse base up for any type of flavor absorption.

Using pulse flours as sauce and soup thickeners, for baking; or as binders for vegetable fritters, offers an amazing alternative to the traditional binders while packing dishes with deliciousness and healthy plant-based protein. Chef Mary Sue Milliken and Susan Feniger of Border Grill in Los Angeles create vegetable fritters with chickpea flour that’s packed with flavors of coriander, cumin, red pepper flakes, turmeric, and cayenne.

In addition to adding extra flavor, common seasonings often paired with pulses help in other ways. Cumin, fennel, garlic, saffron, lemongrass, and saucy all add flavor and all help with digestion.

The amazing ability of pulses to meld with infinite tastes and textures makes them a truly versatile component. Spices, acids, sweetness — they all work perfectly with the earthy and savory nature of pulses.

What is a Flavor Sponge?

Lentils, chickpeas, beans, or peas, are a Pulse. Pulsing dates back to the Stone Age and is still used today.

The flavor of pulses is found in the seadcoat — therefore, whole pulses will tend to have more flavor than split red lentils because the red lentil seadcoat is removed. Whole pulses therefore may be able to carry stronger, bolder flavors such as curry pastes, vinegar, mustard, or chili flakes. Split pulses may be more suitable for more delicate flavor additions like coconut milk, miso, and cinnamon.

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Transformation Kit

Pulses are one of the most versatile ingredients in the pantry — with the right techniques and the right equipment, you can transform them into an infinite selection of textures and flavors.

1. CRISPING
   
   POPPING LENTILS
   Traditionally, lentils are prepared tenderly, slow-cooked in liquid. But once they’re cooked, they can be fried in hot oil providing a popped, crispy pulse perfect for adding crunch and crispness to any dish.

   CRISPY WHOLE CHICKPEAS
   U.S. diners are most familiar with chickpeas in the form of hummus. However, cooked whole chickpeas can be roasted in the oven at a high temperature, producing a crisp exterior with a creamy, tender interior.

   DREDGING WITH CHICKPEA FLOUR
   Often cooks dredge their fried foods with flour, but chickpea flour offers an equally crispy, more flavorful option for providing fried foods with a crispy crunch.

2. PURÉEING
   
   BLENDERS
   If you look beyond your average food processor, you can achieve truly incredible purées, infinitely silkier than anything you ate growing up. Use a cavitation blender — like a Vitamix — to produce a light, perfectly smooth purée. An added bonus: These blenders are incredibly capable of emulsifying large quantities of oil into the pulse purée. Beyond adding flavor, additional oil can improve mouthfeel and moisture perception.

   PACO JET
   For the ultimate in smooth purées, professional cooks employ the Paco Jet. This machine requires you to freeze the product and then processes it into a purée smoother than any other technique is capable of producing.

3. THICKENING
   
   LIGHTER IMPACT
   Gram for gram, pulses don’t have the same thickening abilities as most starches, but that very property can provide cooks with an incredibly elegant option: adding pulse purées to soups and sauces for great mouthfeel, flavor, and light thickening. A smooth VitaMix-blended pulse purée can delicately tighten a sauce, while split lentils and split peas can provide heartier thickening for soups.

   HYDROCOLLIDE
   Likewise, chickpea flour has been used for decades as a healthy, flavorful, hydrocolloid (liquid thickener).

Transformation Recipes

POPPED LENTILS

YIELDS 1 CUP

INGREDIENTS

Canola oil 2 oz.
Whole green lentils cooked, drained 1 cup

PREPARATION
Heat a skillet on medium high heat with the oil and add the lentils. Swirl the pan around and toss the lentils in the oil. Season with salt and pepper if desired.

Click here to view recipe video.

CRISPY ROASTED LENTILS

YIELDS 1 CUP

INGREDIENTS

Split red lentils 1 cup

PREPARATION
Soak lentils for 1 hour. Drain water, then roast at 350˚F for 20 to 25 minutes. Cool.

Click here to view recipe video.

LENTIL PURÉE

YIELDS 2-3 CUPS

INGREDIENTS

Split red or whole green lentils, rinsed 1 ¼ cups
Water 4 cups

PREPARATION
Bring lentils and water to a boil. Cover and simmer for 7 to 9 minutes for split red lentils, or 20 to 25 minutes for whole green lentils. Drain, reserving the liquid. Add ⅛ cup of the lentil liquid back into the lentils. Purée in a blender or food processor until smooth.

Click here to view recipe video.
Pulse FAQs

1. Do I need to sort dry pulses?
Yes, it’s important to sort through dry pulses before cooking. Using the largest sheet tray you can find, lay them out in a single layer and scan through them to identify any small pebbles or foreign objects. Once sorted, give them a rinse.

2. To soak or not to soak?
While lentils are quick-cooking pulses, you can shorten the cooking times of beans, whole peas, and chickpeas by soaking them before cooking. Medium sized pulses can absorb over half of their total weight in just two to three hours of soaking. They can absorb a full 100% of their weight over 12 hours of soaking.

3. Salt or no salt?
Adding salt to the soaking water will actually speed up cooking time, though adding salt to the cooking water can slow the cooking time slightly. Contrary to popular belief, salt will not cause the seed cases to crack. A dilution of 1% works great for pre-soaking (about 10 g/liter or 2 tsp/quart) and helps boost flavor. Additionally, cooking pulses in stock or other rich liquids boosts flavor as well.

4. What about adding acidity?
Vinegar, for example, helps firm up the seed coat and maintain its form. This is one reason it’s common to find preparations with tomato (high in acidity) and molasses (contains slight acidity along with sugar and calcium that also help to firm up with seed coats in dishes desired texture). Keep in mind that it’s better to add acidity toward the end of the cooking process; this allows the pulses to cook more quickly and evenly, before the acidity, and remain stronger after cooking.

5. Is plain tap water ok for cooking pulses?
Yes, tap water is the most common pulse cooking liquid. If you have particularly hard water — likely with lots of calcium and/or magnesium — you may notice your cooked pulses remain slightly firm after cooking. These minerals can interact with the outer shell and firm them up; it’s not a common problem, but if this is an issue with your water source then the easy solution is to just cook with distilled water instead.

6. Is there a particular type of vessel I should use?
For the best results, use a wider rondeau to cook a more spread out layer of pulses in liquid. This helps mitigate against the pulses being crushed while cooking and maintain their shape.

7. Pulses are shelf stable, right?
Can I order them in large amounts?
Dry pulses can be stored in an airtight container, in a cool, dry location for up to one year. After a year, the cooking time required may increase. They can be ordered in large quantities from any foodservice supplier.

8. How long should I cook pulses for?
In a phrase — until they’re done. Lentils are a quick-cooking pulse option, ready in between 5 and 20 minutes depending on your variety, whereas other pulses can take up to an hour or two to fully cook depending on any number of variables (pulse type, water content, volume, and more).

9. What temp should I use to cook pulses?
After sorting through your pulses, start them in cold water and gently heat them to 180º-190ºF (80º-85ºC). You want the water hot enough to cook but not turbulent enough to damage the seed cases. For the most even heat application, cook the pulses covered in an oven.
Health + Nutrition of Pulses

BY SANNI DELMONICO

Flavor will always be the biggest factor driving Americans’ decisions about food, but nutrition is important as well. According to the International Food Information Council Foundation (IFIC) Food and Health Survey, 64% of Americans say they see healthfulness of food impacts their buying decisions. Pulses have a well-deserved “health halo” for Americans. Adding pulses to a menu increases that menu’s nutrient density, or the quantity of essential vitamins and minerals per calorie. Compared to vegetables and grains, pulses are higher in protein, iron, and zinc. Even whole grains, unidentified grains with the bran and germ intact, are lower in these nutrients than pulses.

Compared to meat, poultry, eggs, seafood and other animal proteins, pulses are lower in calories and saturated fat and are cholesterol-free, making them ideal for customers concerned about their blood cholesterol and heart disease risk. At the same time, pulses provide more fiber, potassium, and colorful phytochemicals than animal proteins. Phytochemicals are naturally occurring substances in plants with biochemical properties of plant proteins. Plant proteins are trending for many reasons: sustainability, versatility, flavor, and definiitely nutrition. Americans are specifically trying to consume more of the nutrients that pulses provide: 64% are trying to consume protein, 60% are trying to consume fiber, 48% are trying to consume potassium, and 12% are even trying to consume probiotics. Probiotics are also known as oligosaccharides. Humans cannot digest these short fibers. While we can’t digest them, the healthy probiotic bacteria in our digestive tracts can, and eating plenty of probiotics seems to be essential to a healthy microbiota, the overall distribution of microorganisms in the body. Having a thriving, diverse microbiota may reduce risk of allergies and other immune disorders, chronic diseases including heart disease, and may even impact metabolism and the reduce risk of obesity. Much research still needs to be done to figure out all the ways that the microbiota affects health, but probiotics are clearly an important part of the story. Pulses are among the best sources of probiotics. Unlike grains and grain products including wheat and rice, pulses contain no gluten, making them a great option for customers with celiac disease or gluten intolerance. Pulses also have a lower glycemic index than grains, meaning that when they are eaten, blood sugar rises slowly and doesn’t get as high, an important benefit for those with diabetes or metabolic syndrome.

12% of Americans say they have come to see protein from plant sources as more healthful

71% of Americans say protein from plant sources is healthy, compared to:

42% of Americans say animal protein is healthy

of lentils. All of these factors may contribute to the blood cholesterol-lowering effects of pulses.

The recent IFIC Food and Health Survey reports that 68% of Americans are trying to eat more beans, nuts, and seeds. They recognize the health properties of plant proteins. Plant proteins are trending for many reasons: sustainability, versatility, flavor, and definitiely nutrition. Americans are specifically trying to consume more of the nutrients that pulses provide: 64% are trying to consume protein, 60% are trying to consume fiber, 48% are trying to consume potassium, and 12% are even trying to consume probiotics. Probiotics are also known as oligosaccharides. Humans cannot digest these short fibers. While we can’t digest them, the healthy probiotic bacteria in our digestive tracts can, and eating plenty of probiotics seems to be essential to a healthy microbiota, the overall distribution of microorganisms in the body. Having a thriving, diverse microbiota may reduce risk of allergies and other immune disorders, chronic diseases including heart disease, and may even impact metabolism and the reduce risk of obesity. Much research still needs to be done to figure out all the ways that the microbiota affects health, but probiotics are clearly a critical part of the story. Pulses are among the best sources of probiotics.

1 gram of fat

2.0

1.6

2.0

10 hectares per tonne of protein consumed

<10

<1

100 calories

Extremely Low Carbon Footprint

2.3 kg of Greenhouse Gas (GHG) emissions per kg of edible product

1.6 kg of GHG- emissions per 1000 calories of product

2.0 kg of GHG emissions per 100 grams of protein from product

Relatively Low Water Footprint

58.3 gallons of total water needed to produce each one-ounce serving of dry beans. Of that, 91 gallons of green water (rainfall) and 3.2 gallons of blue water (meaning groundwater, lakes, and rivers).

44.5 gallons of total water — even less — needed to produce each one-ounce serving of dry lentils. Of that, 9.1 gallons of green water and 0.4 gallons of blue water.

Extremely Low Land Use Per Ton of Protein Consumed

<10 hectares per tonne of protein consumed

<1 hectare per million kilocalories consumed

Cost and Profit Analysis

$1.11 is the average cost per pound ($0.07 per ounce) of dry pulses to a foodservice establishment. Of course, we do not eat the dry pulses as is — they require cooking. Through this process, the pulse will expand about 3.5 times its dry weight, which is the average serving size of cooked pulses. To determine the amount of dry product we need to hit this mark, calculate the following equation:

SOAKED WEIGHT/EXPANSION FACTOR: 4.29 oz / 3.5 = 1.23 oz of dry pulses

We need 1.23 ounces of dry pulses to eventually equate to a serving when soaked. At $0.07 per ounce, the following equation will calculate the average cost of dry pulses per serving:

Cost per oz² Weight of Serving: $0.07 x 1.23 = $0.09 per serving of dry pulses

To calculate final portion cost, add in seasonings by individual recipe.
As chefs, how can we get consumers to have the same emotions we have for the products we love? Perhaps you have a favorite seasonal recipe to share. Or maybe the distributor mentioned a price cut on a popular item that was too hard to pass up. Once the product is in the chef’s hands, they must decide what to do with it. This process is referred to as the “PIE Theory of Menu Development.”

First comes the Product: The P. Understanding the products being used in a menu item is key. Where does it come from? How is it grown or manufactured? What are the nutritional benefits? How does it change when prepared or cooked? Perhaps there is a need for new specific type of dish to fit into an already existing menu, whether it is an appetizer, entrée, or dessert. Chefs ponder many dishes at once and then define their favorite components from each. Then they try to put them together into one cohesive plate. For the most part, they follow a process. Good chefs have an intuitive feel for what flavors go well together, like sensory or tactile memory, that is informed by history and tradition or by their own memories. The list of potential flavor combinations is infinite, but people tend to gravitate towards the familiar. They may consult a flavor bible, rely on childhood memories, or previous combinations that have worked, or do some research. Chefs will then think of cooking techniques that are suitable. Is there a technique that best suits the product? Or is there a need for a certain texture on the menu that isn’t already represented.

In the case of creating a new menu item with pulses, let’s consider using split red lentils. Since these pulses are split, they break down in the cooking process much more easily than their whole counterparts, and have a mild flavor. They are often used for soups in many countries such as Morocco, India, and Greece. This means that they pair very well with spices, and can absorb flavors such as sour lemon or yogurt, pungent garlic and onion, and unctuous proteins such as lamb or shrimp. But they also can be soaked and then roasted to create a crispy garnish. Perhaps they can be featured both in puree form as well as in crispy form for an exciting appetizer, as they seem to be best used as a base for other more complicated ingredients.

The second part in this process is the Inspiration: The I. This is where the chef’s creativity shines through. What is the chef’s style of cooking? What are the current trends in the food industry? What are the traditional uses of the ingredients? There is also a lot of camaraderie between chefs and they tend to bounce their ideas off of one another, often sharing inspiration they’ve had from previous employment. A small batch of the dish in progress may be prepared and the kitchen staff will taste and evaluate the dish with feedback. At this point a chef will be thinking about plating. The plating defines the first impression of the dish to the staff and is intrinsic to the success of the dish in the end.

To continue with creating an appetizer with red lentils, we know that hummus is very popular and trendy these days, as are pickled foods and authentic spice blends. Thinking a little outside the box, we could pickle the lentils in a sweet and sour liquid, and then puree them to create a “Pickled Hummus.” In consideration of the seasons, if it were spring, the chef could feature a perfectly grilled slice of Turkish dukkah-spiced lamb to rest on. This creation has crispy and velvety textures, hot and cold elements, and follows the trend and seasons.

The last step in this process is the Execution: The E. This is where discipline is important. The chef will also be thinking of the price point, the variety of other ingredients on the menu, making sure to avoid redundancy, the possibility of cross-utilization of the same ingredients in other menu items, and perhaps how to upsell the dish to customers as an additional menu item, rather than a replacement for other items on the menu.

To finish the red lentil and lamb appetizer, let’s say that everyone has evaluated this dish and has decided that it needs a salty element, as well as something that also adds color and vibrancy to the final dish. A crumble of some hard Greek Myzithra cheese made from sheep and goat milk adds saltiness and a white color contrast, while a single leaf each of parsley and tarragon on each cracker would add color and fragrance to the earthy flavors of the lentils and the lamb. And here, we have created a new menu item called Pickled Red Lentil Hummus and Grilled Dukkah Spiced Lamb with Crispy Lentil Crackers and Myzithra Cheese.

A single dish can make or break the flow of a menu, as all dishes need to work well with one another for the success of the menu as a whole. Following the steps of PIE Theory in order to create a new and exciting dish will allow the chef to maximize profits and generate excitement with new ingredients and preparations.

Recipe Generator

By Rebecca Peizer

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### Lentil Bolognese

**YIELDS 6 SERVINGS**

- **INGREDIENTS**
  - Celery stalk, with leaves, ½ cup
  - Onion, medium, minced 1 each
  - Salt as needed
  - Oregano, minced 1 tsp.
  - Milk 1 pint
  - Whole green lentils 1 cup
  - Garlic cloves, minced 2 each
  - Tomatoes, canned, 3 each
  - Pancetta or prosciutto, ¼ cup
  - Greek yogurt, plain, 2 cups
  - Lemon, zest and juice 1 each
  - Parsley, chopped as needed
  - Bay leaf 1 each
  - Ground black pepper ½ tsp.
  - Salt 2 tsp.

**PREPARATION**

1. In a saucepan, heat the oil, and sauté the pancetta or prosciutto with the onion, celery, and carrots until the onions just begin to carommatize. Drain any excess fat, add the garlic, and cook until aromatic.

2. Add the ground meat, the sausage, and the lentils to the skillet and cook until the meats turn deep brown; drain any excess fat. Add the tomato pulp and cook, stirring, until thick and cooked through.

3. Add the wine to the skillet and deglaze until wine has reduced by half, about 3 minutes.

4. Add the bulgur and lentils to the skillet and continue cooking until thick and well combined, about 10 minutes.

5. Add the bulgur and lentils to the bulgur and lentils and continue cooking until thick and lightly caramelized, about 10 minutes.

6. Stir in the bulgur and lentils and cook until just beginning to thicken. Add patty and brown on one side.

7. Flip patties over and continue cooking until heated through.

8. Serve warm with a dollop of yogurt and parsley with chili pepper, reserved on onion strings, and parsley.

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### Lentil & Bulgur Pilaf

**YIELDS 8 SERVINGS**

- **INGREDIENTS**
  - Tomatoes, peeled, thinly sliced 6 each
  - Canola oil ½ cup
  - Bacon, chopped 1 cup
  - Green bell pepper, diced 2 each
  - Onion, diced 2 each
  - Salt as needed
  - Ground black pepper as needed

**PREPARATION**

1. Heat 3 inches of oil to 350°F in a deep pot or wok and fry the fritters. Drain on paper towels.

2. Cut into 12 squares. Serve dusted with powdered sugar.

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### Lentil & Beet Burger

**YIELDS ABOUT 20 FALAFEL BALLS**

- **INGREDIENTS**
  - Lentil purée (recipe page 23) 3 cups
  - Beets, cooked, diced 1 cup
  - Barley, cooked ½ cup
  - Cashews, roasted, diced 1 cup
  - Bread crumbs 1 cup
  - Smoked Gouda, slices 6 each

**PREPARATION**

1. Form the mixture into balls about the size of a baseball and fry in oil.

2. Cool.

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### Lentil Falafel

**YIELDS ABOUT 12 SQUARES**

- **INGREDIENTS**
  - Whole green lentils, rinsed 1 cup
  - Onion, finely chopped 1 cup
  - Beet, diced 1 cup
  - Barley, cooked ½ cup
  - Cashews, roasted, diced ¼ cup
  - Bread crumbs 1 cup
  - Smoked Gouda, slices 6 each

**PREPARATION**

1. Place the whole green lentils in a large bowl and soak overnight. For a quick soak, place them in a large bowl and add enough cold water to cover them by at least 2 inches, soak for 1 hour.

2. Place the red split lentils in a large bowl and add enough cold water to cover them by at least 2 inches, soak for 1 hour.

3. Place the lentils in a food processor and process with enough potato cooking liquid until a thick and smooth purée is achieved.

4. Pour batter into greased pan.

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### Lentil & Avocado Brownie

**YIELDS ABOUT 2 QUARTS**

- **INGREDIENTS**
  - Lentil purée (recipe page 23) 3 cups
  - Avocado, ripe 1 each
  - Eggs, large 4 each
  - Brown sugar ½ cup
  - Unsalted cocoa powder 1 cup
  - Canola oil 2 oz.
  - Tahini paste ¼ cup
  - Garlic cloves 4-6 each

**PREPARATION**


2. Pour the beans into the sugar using your fingers until dispersed.

3. Continue cooking until heated through.

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### Potato Hummus

**YIELDS ABOUT 12 SQUARES**

- **INGREDIENTS**
  - Whole green lentils, cooked 16 oz.
  - Cilantro, chopped ¾ cup
  - Parsley, chopped ¾ cup
  - Green bell pepper, diced 2 each
  - Onion, roughly chopped 2 cups
  - Canola oil, for frying as needed
  - Baking powder 2 tsp.
  - All-purpose flour (if needed) ½ cup
  - Cumin 2 tsp.
  - Salt 2 tsp.

**PREPARATION**

1. Grease a 9- by 11-inch baking pan.

2. Mix the avocado, eggs, and brown sugar together.

3. Mix in the chocolate chips.

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### Split Red Lentil & Sweet Potato Hummus

**YIELDS ABOUT 2 QUARTS**

- **INGREDIENTS**
  - Sweet potato, peeled, diced 1 cup
  - Garlic cloves 4-6 each
  - Water 2 cups
  - Tahini paste ¼ cup
  - Semi-sweet chocolate chips 1 cup
  - Peanut butter ½ cup
  - Powdered sugar as needed
  - Ground black pepper as needed
  - Carrot, ground 1 tsp.

**PREPARATION**

1. Simmer sweet potato and garlic cloves in water until very tender Drain, reserving liquid.

2. Combine all ingredients in the bowl of a food processor and process with enough potato cooking liquid until a thick and smooth puree is achieved.

3. Serve with whole wheat pita, lentil hummus, and lettuce with tomato, onion, lettuce and peppers.

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