February 2023

LACTO-FERMENTATION – ADVENTURE DEEPER INTO THE OPPORTUNITY OF DAIRY:

Apricot *Crème* Fool Grilled Vegetables with Yogurt Curd Indian *Raita* Dressing Israeli Meatball *Pita* Pockets with Turkish Yogurt – Garlic Sauce Sour Cream Dessert Sauce

It was not until the late 1960s that yogurt could be found in most grocery stores. It was considered a health food and, consequently, required a trip to a more offbeat food source of my younger years, the health food store. It was different from the natural food stores and "vitamin" stores we have today, springing, as it did, from the hippie movement of the 1960s. Ethnic groceries and dairy stores carried both yogurt and sour cream which had been fermented to perfection on their own premises, never, of course, with all the sweetened fruit sauces and sugar that are added to yogurt today. Sometimes it takes considerable searching to find plain yogurt with active cultures to cook with or to use as a starter for making yogurt.

Lactobacillus burgaricus and *Streptococcus lactis* are bacteria that make up the "active cultures" in most yogurt. They are the organisms that ferment the milk. These bacteria can break down starches and sugar. One of the by-products of their digestion is the formation of lactic acid. Therefore, it is called lacto-fermentation. It should be noted that carbon dioxide and a small amount of alcohol are also formed in lacto-fermentation so a small amount of alcohol will be present in any food that has undergone lacto-fermentation.

Lactic acid bacteria, as they are collectively known, were isolated and identified by Dr. Elie Metchnikoff, the head of the Pasteur Institute in Paris who was awarded the Nobel Prize in 1908 for his work. Long before Dr. Metchnikoff and other bacteriologists looked into the process, people in Central Asia, Eastern Europe, and the Middle East made yogurt. Long before you could buy a bacterial starter to make yogurt, wild bacteria, good and bad, were depended upon to sour milk and begin the fermentation process that extended the dietary availability of fresh milk, especially in hot climates. Yogurt is made using the milk from all kinds of animals, goats, water buffalo, camels, ewes, mares, and, oh yes, cows. The Persians and others in the Middle East call it *mast*, the Arabs and others in the Levant call it *laban*, Russians call it *kumyss* or *kefir*, and you will have to search for *matzoon* in Armenia if you want yogurt. The Bulgarians would counter all this with their own claim to the best yogurt in the world and also assert that *Bacillus bulgaricus* is the only bacterial starter to use. Their claims for yogurt reached a wonderful peak when commercials for a well-known brand of yogurt featured Bulgarian centenarians whose longevity, of course, was attributed to yogurt.

Dahl is an Indian yogurt that is fermented slowly and at a lower temperature than are most commercially-available yogurts resulting in a yogurt that is extremely rich and silky. If you have the opportunity, it's a real treat.

Kefir is another way to enjoy the benefits of the fermentation action of lactic acid-forming bacteria but in this case kefir "grains," aggregations of *Lactobacillus kefiranofaciens* and *Saccharomyces turicensis*, are added to low-fat milk and fermentation is allowed to proceed overnight. Kefir is a more liquid product than is the yogurt generally available in the United States. If you have traveled to Russia or any of the Central European countries, you know that the yogurt available for breakfast is more like the *kefir* now pretty widely available in our grocery stores. *Kefir* is a convenient, nutritionally efficient way to start your day.

A third product that is the result of lacto-fermentation is sour cream. Cream has been preserved before it can spoil for centuries by a process confusingly known as souring. The process is accomplished by lacto-fermentation. Sour cream is another product that is usually tolerated by lactose-intolerant individuals.

Lacto-fermentation products are credited with improving lactose digestion, increasing bone health, and reducing inflammation. Since the lactic-acid bacteria produce angiotensin-converting-enzyme inhibitor (otherwise known as Ace-inhibitor), products created by lacto-fermentation may have a positive effect on blood pressure. Fermented dairy products are also said to enhance antioxidant activity and help regulate blood sugar. The process of fermentation promotes the growth of beneficial bacteria in the gut and, therefore, products like yogurt, *kefir*, and sour cream have a positive effect on the immune system.

These foods, cheeses, and many other foods have been preserved for millennia using lacto-fermentation. The live bacteria reduce the growth of harmful organisms. Our generation has added to the case for fermented foods with scientific data that shows that these foods clearly support human health.

APRICOT CRÈME FOOL

TPT - 9 hours and 12 minutes; 8 hours = yogurt draining period; 1 hour = chilling period

This is a not-too-sweet basic recipe for a fruit whip which can be adapted to all kinds of fruits. Made with apricots, it is one of our favorites, evolved to use our precious home-canned Buffalo Valley-grown apricots. Unlike the grocery store fruit that are picked long before there is any flavor development, these tree-ripened fruits are rich, sweet, and flavorful.

This may be prepared ahead and refrigerated, covered, for up to two days.

3/4 cup plain yogurt

3/4 cup apricot halves canned in light syrup —well-drained *or fully-ripened* fresh apricots*

- 1 1/2 tablespoons confectioners' sugar 1/2 teaspoon pure vanilla extract 1/4 teaspoon pure almond extract
- 1/4 cup (about 4 halves) well-drained, apricot halves canned in light syrup—coarsely chopped

1/4 cup heavy whipping cream

2 tablespoons slivered additive-free almonds —lightly toasted

Set two automatic drip coffeemaker filters into a sieve over a small bowl or a yogurt filter over a 1-cup measuring cup. Pour the yogurt into the filters and set in the refrigerator. Allow to drain for about 8 hours, or overnight.

Next morning, using the food processor fitted with steel knife, purée the 1 1/2 cupfuls drained apricot halves until smooth.



In a mixing bowl, combine apricot purée, prepared yogurt *crème*, confectioners' sugar, and vanilla and almond extracts. Using a wire whisk, thoroughly combine.

Stir chopped apricot halves into puréed mixture. Set aside.

Using an electric mixer fitted with *chilled* beaters or by hand using a *chilled* wire whisk, beat heavy cream in a *chilled* bowl until stiff.

Using a spatula, fold stiffly beaten cream *gently*, but *thoroughly*, into apricot mixture. Divide among four individual parfait glasses or sherbet glasses or, if preferred, spoon into a single serving bowl. Cover each dish with plastic wrap and chill in the refrigerator for at least 1 hour before serving.

Garnish with toasted almond slivers before serving.

Yields 4 individual servings

Notes: *If you can't can the apricots grown in your valley, a 16-ounce can of apricots processed in juice or light syrup will usually be adequate.

This recipe is easily doubled or tripled, when required.



Mangoes, purple plums, and most berries may be used instead of apricots. However, the addition of more sugar may be required. Berry fools are much more enjoyable if the purée is sieved to eliminate seeds.

1/4 SERVING – PROTEIN = 3.9 g.; FAT = 7.7 g.; CARBOHYDRATE = 21.8 g.; CALORIES = 167; CALORIES FROM FAT = 42%

GRILLED VEGETABLES WITH YOGURT CURD

TPT - 25 minutes

In my discussion of the cuisine of Albania in "A Worldwide Vegetarian Journey to Discover the Foods That Nourish America's Immigrant Soul" I introduced my readers to fried yogurt curd in a classic recipe "Qofte me Kos," Soy Meatballs with Garlic and Yogurt Curd. Yogurt, when heated gently, loses whey and becomes a thick condiment due to changes in protein bonds. With the change of form comes a saltiness and depth of flavor that appeals to those who would never sit down to a bowl of plain yogurt. I serve it over soy meatballs in the classic Albanian way or over sautéed soymeat strips, over tiny boiled potatoes as in Ugandan Potatoes with Yogurt Curds, and as an accompaniment to grilled vegetables, as in this recipe.*

- 1 small Japanese eggplant—sliced lengthwise and then in half crosswise
- 2 small carrots-peeled and cut into 4-inch chunks
- 2 thick slices Italian red onion
- 2 thick slices sweet onion—Vidalia, Walla Walla, Mayan, or Texas Sweet
- 1 small Yukon potato—peeled and cut into four thick slices
- 4 baby red, yellow, or orange peppers—trimmed, cored, and seeded
- 2 large garlic cloves—unpeeled
- 1 tablespoon high-heat safflower or sunflower oil
- 6 sugar snap peas—trimmed
- 2 cups plain yogurt

Salt, to taste Freshly ground black pepper, to taste Lemon wedges

8 big, meaty black olives, to garnish

Heat a GRILL PAN over MEDIUM-HIGH heat.**

Arrange your prepared vegetables on the hot grill pan, *reserving* the snap peas until the very end of the grilling process. Brush vegetables with high heat safflower or sunflower oil. Grill until vegetables are well-marked, turning to expose all surfaces to the grill pan. If necessary, grill vegetables in batches. As vegetables are cooked, transfer them to a heated platter in a warm oven.

Meanwhile, it a small non-stick-coated skillet set over *MEDIUM* heat, allow yogurt to curdle. *Reduce heat to LOW*. Pour off whey.** Return yogurt curds to the heat, allowing them to continue cooking until required.





Add sugar snap peas to grilling vegetables. *Quickly heat and mark pea pods. Do not overcook.* Transfer all vegetables to heated platter in a warm oven.

Season with salt, black pepper, and a squeeze or two of lemon juice.

Spoon yogurt curds over grilled vegetables. Scatter black olives over.

Serve at once.

Yields 4 servings

Notes: *Choose all of the vegetables I have suggested or halve the recipe for two. Substitute your own favorites.

**DO NOT DISCARD THE RESULTANT WHEY, *specifically avoid discarding any down the drain* since it can adversely affect septic tanks and pipe seals. It is a nutritious by-product of cheese and yogurt making that is loaded with protein, minerals, and enzymes. I use it instead of water in my bread recipes and add it to the cooking water for rice, pasta, and potatoes. When I soak oatmeal overnight, I soak it in whey. Add it to soups, stews, and smoothies, and if you still have some left over, refrigerate or freeze it. It is inadvisable to pour whey down the drain but do pour any excess on your compost pile or feed your acid-loving crops. Chickens and pigs are said to love it but that I can't confirm.

1/4 SERVING – PROTEIN = 7.8 g.; FAT = 2.8 g.; CARBOHYDRATE = 18.4 g.; CALORIES = 136; CALORIES FROM FAT = 19%

INDIAN RAITA DRESSING

TPT - 6 hours and 3 minutes; 4 hours = yogurt draining period; 2 hours = flavor development period

This is a favorite dressing to serve over a salad of diced fresh tomatoes and cucumber or a tossed salad of shredded lettuce and bok choy with onions. Each accompanies an Indian meal well.

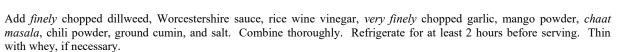
1 cup plain yogurt

3 tablespoons low-fat buttermilk*

2 teaspoons *finely* chopped *fresh* dillweed 1/4 teaspoon *vegetarian* Worcestershire sauce 1/8 teaspoon rice wine vinegar 1 small garlic clove—*very finely* chopped 1/4 teaspoon mango powder 1/8 teaspoon *tandoori* spice mixture *(chaat masala)* 1/8 teaspoon chili powder 1/8 teaspoon ground cumin Pinch salt

Set two automatic drip coffeemaker filters into a sieve over a medium-sized bowl or a yogurt filter over a 2-cup measuring cup. Pour the plain yogurt into the filters and set in the refrigerator. Allow to drain for about 4 hours, or until of the consistency appropriate for your use. Retain whey.

In a small bowl, combine drained yogurt and buttermilk. Using a small wire whisk, combine well.



Yields about 1/2 cupful

Notes: *Reconstituted dried buttermilk powder is the most economical way to introduce the distinctive tang of buttermilk to this recipe unless you have other uses for a quart of buttermilk, or, like my grandmother, enjoy drinking it.

This recipe can be doubled, when desired.

1/12 SERVING (i. e., 2 teaspoonfuls) – PROTEIN = 1.1 g.; FAT = 0.4 g.; CARBOHYDRATE = 1.4 g.; CALORIES = 14; CALORIES FROM FAT = 26%





ISRAELI MEATBALL *PITA* POCKETS WITH TURKISH YOGURT–GARLIC SAUCE

TPT - 15 minutes

On the streets of most Middle Eastern cities you can find street vendors or food carts preparing hundreds of falafel-stuffed pita halves for hungry customers. The elements of cuisine brought to Israel by immigrants combines in the most unusual and delicious of ways. There is generally a vendor in sight for breakfast, lunch, dinner, or snack. Organic falafel are not always available and you don't always have the time to make your own falafel. Frozen soy meatballs can replace falafel for a quick, healthy lunch sandwich.

TURKISH YOGURT – GARLIC SAUCE:

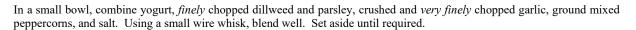
Yogurt Salcasi Sarimsak 1/2 cup plain yogurt 2 tablespoons *finely* chopped fresh dillweed 2 tablespoons *finely* chopped fresh parsley 1 garlic clove—crushed and *very finely* chopped Freshly ground mixed peppercorns—red, black, and white—to taste Pinch salt

2 *pita* loaves—halved 2 tablespoons *hummus*

4 *frozen* soy meatballs 2 teaspoons olive oil

3 tablespoons *finely* chopped red onion 1 large plum tomato—well-rinsed and *finely* chopped

Preheat oven to 300 degrees F.



Wrap pita halves in aluminum foil. Place in preheated 300-degree F. oven to warm.

In a small skillet set over *MEDIUM* heat, combine meatballs and olive oil. Sauté until meatballs are heated through and lightly browned. Remove from heat and set aside briefly.

ASSEMBLY -

Remove *pita* from oven. Open *pita* halves. Spread each half with 1 1/2 teaspoonfuls *hummus*.

Using a sharp knife, halve each meatball and put two halves in each pita half.

Divide the *finely* chopped onion and tomato among the *pita* pockets.

Add about 3 tablespoonfuls of prepared yogurt-garlic sauce to each filled pita.

Serve at once.

Yields 4 servings

Notes: This recipe can be halved or doubled, when required.

1/4 SERVING – PROTEIN = 9.1 g.; FAT = 5.1 g.; CARBOHYDRATE = 27.5 g.; CALORIES = 190; CALORIES FROM FAT = 24%





SOUR CREAM DESSERT SAUCE

TPT - 4 minutes

As a child, my grandmother would often give me her sour cream crock and send me to a market a few blocks away to buy sour cream. The store was owned by a Polish family who sold cheeses, homemade yogurt, homemade sour cream, homemade sausages, and homemade bread. The reward for running the errand for grandma was a big slice of sour rye bread slathered with the freshly made sour cream and sprinkled with sugar. I can still resurrect the memory of the texture and the taste. Perhaps that memory is why this sauce is so dear to me. This is probably the easiest dessert sauce in my repertoire. It makes many appearances at our table. To achieve the consistency I need for this sauce, I avail myself of the protein-rich whey that accumulates in the sour cream container. As a result, I can elect to use less heavy cream. This a wonderful choice to serve over pears and cakes. The taste is sweet with an underlying tartness, the result of fermentation by which sour cream is created.

- 6 tablespoons *light* dairy sour cream 1 tablespoon sugar
- 1 teaspoon pure vanilla extract
- 1 tablespoon heavy whipping cream more or less as needed

In a small bowl, combine sour cream, sugar, and vanilla extract. Stir well to combine thoroughly.

Gradually stir heavy cream into the sour cream mixture until you achieve the consistency desired. Turn into a small serving dish. Refrigerate until required.

Serve chilled. Refrigerate leftovers.

Yields 1/2 cupful

Note: This recipe can be doubled, when required.

1/4 SERVING (i. e., 2 tablespoonfuls) – PROTEIN = 1.6 g.; FAT = 3.1 g.; CARBOHYDRATE = 5.2 g.; CALORIES = 56; CALORIES FROM FAT = 50%



Speaking of tartness, next month I thought we might explore some year-round options for cranberries. If you can spare a moment or two, do drop by,

Judy

Please note that all food value calculations are approximate and not the result of chemical analysis. Copyright © 2022