Pulses from Around the World: Nutritious Food for a Sustainable Diet

March 2, 2018

9:00 am – 12:00 pm

@ God’s Love We Deliver

1. Rebecca Elbaum, MPH, RD, CDN, CDE and Chair of the NYCNEN Steering & Envisioning Committee welcomed attendees, noting there would be a final NYCNEN meeting of the season on April 20.
2. Tyffanie Ammeter, MS, RDN, CDN and NYCNEN Steering & Envisioning Committee member, introduced the topic of pulses (dried beans, peas and lentils), with the meeting’s goal of providing information on how pulses are used around the world, overcoming some common barriers like cooking time, and ways to prepare them.

She recently assembled pulse recipes from NYCNEN member submissions and has submitted the [NYCNEN Global Pulse Recipe E-book](https://drive.google.com/file/d/1N-x2rKwLmaPrRBxlMAaCzAnIuSbc1a4n/view) to the NYCNEN community.

1. Chef Julie Harrington, an RDN and trained chef, is the Culinary Nutrition Programs Coordinator of [Living Plate,](https://drive.google.com/file/d/18eD2_zTCf_ih_ek7XlsasonkMcxd_ZFU/view) presented [Cooking Pulses 101](https://drive.google.com/file/d/1H8BcjtwJISppfxfWdeX9uo_T5Ll7xK9A/view) (this link to gives a great overview of her presentation.)

She explained how her work within the wellness community includes a chef demonstration, that helps to easily break down barriers for people and healthy doesn’t have to be boring – if you’re cooking something that has a great aroma, people will be curious and want to learn more.

She says her organization is passionate about cultivating confidence in the kitchen and creating positive experiences around food while remaining true to a science-based approach to nutrition education – mixing the science of nutrition with culinary guidance, they spread their mission to communities through partnerships with nutrition professionals and organizations nationwide.

She defined pulses as the edible seeds of plants in the legume family and recognized by the UN Food & Agriculture Organization ([2016 was the international year of the pulses](http://www.fao.org/pulses-2016/en/)) with 11 types: dry beans, dry broad beans, dry peas, chickpeas, cow peas, pigeon peas, lentils, Bambara beans, vetches, lupins and pulses nes. In looking at the health benefits of pulses, they’re a good source of plant-based protein, great source of fiber, good source of iron and potassium, and are low-fat and low-sodium. They help to maintain a healthy weight as well as help to decrease risk of chronic disease, and dry pulses are the least expensive form of protein.

To cook dry pulses (most inexpensive protein):

* Rinse in water and remove any dirt/stones or legumes that may be shriveled;
* Cover legumes with plenty of water and soak them overnight (six to eight hours). Important to soak because they will cook more evenly, will help with digestion (break it down and release fermentable carbohydrates). Note: Split peas and lentils don’t need to be soaked, just boil for about 20 minutes;
* Important to change water and gently boil the legumes until they are the texture you prefer;
* Alternatively, you can use canned, however look for low-sodium or no-salt added versions (always rinse) – a convenience and shelf-stable. Can also find frozen pulses and vacuum-sealed versions.

For storing and other tips, visit [Easy Way to Cook with Beans](https://drive.google.com/file/d/1mNflCHOPpxvUzFopJ8DpUihBLHdXXjzv/view) and the [Lentil.org cookbook](https://drive.google.com/file/d/1wXaKNzHltkdsUhUNG8GiIyqPtYG-hhux/view).

Julie noted common barriers to cooking and consuming pulses (unsure how to cook or use in recipes, unfamiliar with various varieties, taste preferences, abdominal discomfort dietary restrictions and diet trends), and went through a primer on how to use dry or canned pulses, how to store, and ways to minimize abdominal discomfort. She also gave ideas for how to increase intake by education, using variations on pulses like garbanzo bean flour, lentil pastas, adding mashed cannellini beans to mashed potatoes, or including cooked pulses in smoothies.

1. Margaret Dunn-Carver, MS, RDN, CDN Steering & Envisioning Committee Member led a recipe sharing activity where attendees were able to talk about favorite dishes made with pulses, where the dish originated and why it’s an important part of our repertoire. We heard about pulse recipes reflecting a global perspective, including Ethiopian, Korean, and more, with varying flavor profiles and how these dishes reflect a cultural connectivity.
2. Chef Julie’s cooking demonstration highlighted the versatility of lentils – used in a vibrant and delicious [Lentil Stuffed Red Peppers](https://drive.google.com/file/d/1Z4WltTtYgKyQvRuXutsaRgPOnDDMyp4Z/view) recipe (with tips on modifying the recipe, using chopped sweet peppers, instead of stuffing the halved pepper). She offered many tips and emphasized the importance of looking at the community’s demographic before choosing a recipe, the fact you don’t need to have as many ingredients in a demonstration (particularly with novice cooks), provide tips for leftovers, show knife skills in the demonstrations, and if kids are involved, ask them to take a ‘no thank-you bite’ if they are resistant. She noted that an easy way to make a plant-based dish more meat-like is to use mushrooms and offered up the fun fact about peppers – female peppers are rounder and have four lobes on the bottom, whereas male varieties have three. Samples were served.
3. Kate Gardner Burt, PhD, RD and Lehman College Assistant Professor of Dietetics, Food and Nutrition presented [Pulses: Cultural Roots of the Musical Fruits](https://drive.google.com/file/d/15RKcfTAkih0DSRlmG8EK8TOVVff2F9cK/view).

Interested in cultural food and cultural heritage, not just nutritional content, specifically through families. She shared how she found pulses to be nutritious and delicious, have numerous health benefits, accessible, promote biodiversity, mitigate climate change and are culturally important and stressed the importance of being a culturally- competent educator.

Benefits of pulses include being high in protein, a complex carbohydrate, great source of vitamins and minerals, low in fat, low glycemic index, gluten free, no cholesterol or sodium, full of fiber and are affordable. They’re also sustainable in that they have nitrogen-fixing properties and increase soil fertility, reduce the need for synthetic fertilizers, increase availability and are water efficient (it takes 41 gallons of water/pound to produce pulses and 1,857 gallons water to produce a pound of beef).

In terms of their history, we have seen evidence that pulses were cultivated 10,000 years ago in Israel and we’ve seen a 59% increase in production since 195- with over 14,000 known varieties. Worldwide, the average consumption is 7kg/year; East Africa at 40kg/year compared to US at just under 3 kg/year. (The global average of meat is 40 kg/person/year while in the US it is much higher; animal protein is getting cheaper and more globally available.)

Some quick facts:

* In North America we’ve had companion planting with the Native Peoples’ Three Sisters (beans, corn and squash)
* Central/South America has the highest consumption of pulses (25 kg/person is seen in Nicaragua) and Argentina has the highest production but lowest consumption; Peru is the largest exporter in the Andes and Brazil has highest consumption of pulses, mainly black beans.
* Alternatively, Europeans consume mainly peas, rather than beans, but it’s the core component of the Mediterranean diet.
* In India, you see many chickpeas, pigeon peas, urad (black lentils), and moong beans.
* East Asian consumption includes fermented black beans
* Japanese cuisine includes sweet red bean fillings.
* Middle Eastern consumption emphasizes three main varieties in lentils, chickpeas and fava beans;
* In Africa, you find many similar types of pulses as in Central/South America with varying flavor profiles and if a country is land-locked, it dictates flavors and what goes into a dish.
* Senegal Bean sandwiches (street food)
* Ethiopian Ful Medames (Ful translates to fava beans)

Kate notes you can trace what happened as a result of different periods of trade:

* Triangulated trade during the time of Columbus – Africa and Europe and Central/South America
* British Colonization of India – shaped Eastern Asian influence

There are also ways to trace food around the world (i.e. dumplings) because of the existing culture, trade routes and war.

Kate’s recommendations for further study:

* Michael Twitty – [The Cooking Gene](https://thecookinggene.com/); series on PBS – also online Chef and culinary historian – influences of enslaved peoples on our country
* Michael Twitty’s Blog: [Afroculinaria](https://afroculinaria.com/)
* Adrian Miller’s: [Soul Food](https://www.amazon.com/dp/B00ZVEOIP8/ref=dp-kindle-redirect?_encoding=UTF8&btkr=1)
* [The onset of Faba Bean farming in the Southern Levant](https://www.nature.com/articles/srep14370)
* [Native American foods: History, culture, and influence on modern diets](https://www.sciencedirect.com/science/article/pii/S2352618116300750)
* [Factors influencing pulse consumption in Latin America](https://www.cambridge.org/core/services/aop-cambridge-core/content/view/S0007114502002532)
* [Beans and Rice – A Staple of Traditional Diets](https://oldwayspt.org/system/files/atoms/files/TradDiet_BeansRice.pdf)

1. **Call to Action**

Try one new pulse recipe within the next 30 days and post about it on social media

Tag @NYCEN & #NYCENENpulsechallenge