POTATO IS A NUTRITION POWERHOUSE



Where diets offer empty promises, potatoes give people their deserved fill

By Ben Harris, research associate manager, and John Toaspern, chief marketing officer, Potatoes USA

Back when the potato was still seen as a novelty by most of the world, Andean people were way ahead of the curve in their intimate knowledge of the crop's wild relatives.

In fact, their affinity for the potato was so strong, they were willing to go to extreme measures to consume it—coating tubers in a "gravy" of clay and water most likely as a means of neutralizing toxic compounds like solanine and tomatine.¹

Today, the toxicity surrounding

potatoes is not so much coming from within as from without.

Just as the potato has learned to cope with a growing consortium of pests and pathogens, it has also had to develop a thicker skin to deflect the vitriol that some direct at it.

There is no point in name-dropping. It's no secret that some of the potato's most outspoken critics, whether they choose to wield mainstream media or shaky scientific claims as their weapon of choice,

continue to expend a lot of energy in trying to batter the potato as a useless carb, a relic of the past weighing down the world in both a medical and environmental sense.

We in the industry, of course, know this could not be further from the truth. But it will take a concerted effort to reposition the potato in the public eye as the nutritional powerhouse and sustainability pioneer that it is, one deserving of a spot on the most cutting-edge of menus.

Let the tater haters be—no amount of "gravy" will ever make the potato palatable to them. Our focus needs to be on putting the potato's virtues front and center for the swing audiences, those who may be on the fence about America's favorite vegetable yet are ready and willing to listen.

Above: Potatoes USA Chief Marketing Officer John Toaspern speaks to attendees of the organization's Winter Meeting in advance of the 2019 Potato Expo in Austin,

Left: It will take a concerted effort to reposition the potato in the public eye as the nutritional powerhouse and sustainability pioneer that it is, one deserving of a spot on the most cuttingedge of menus.



POTATO'S PLACE IN DIETS

What will it take to cut through the noise to reach them? In a word: data. Fortunately, the facts and figures tell a much different story about the potato than the naysayers would have it.

Food balance sheets serve as indisputable confirmation of the potato's place in classic, timeless diets that are regarded without exception as healthy.

The literature also offers up ample evidence for the tuber as a resilient and resource-efficient crop, well-adapted for a future in which volatile weather seems likely to worsen while arable land and fresh water sources grow scarcer.²

For the purposes of this article, we will use the Mediterranean diet, arguably the gold standard for good eating, as a case study.³

What makes the Mediterranean unique among "diets" is that it is not really a diet at all.

Rather than being manufactured by "expert" outsiders, the culinary patterns that comprise it arose organically across a wide region over the course of decades, essentially making it the largest (in scope and sample size) longitudinal, naturally occurring nutrition study the world has seen.

The arc of the Mediterranean diet extends all the way back to the Middle Ages, with scholars attributing its origins to Roman tastes for olive oil, seafood, wine and other hearty, hunger-banishing fare among which the potato is right at home.

Only much later did it receive a label, when, in 1993, the nonprofit Oldways, along with the World Health Organization and The Harvard School of Public Health, presented it as a superior alternative to existing food pyramids.⁴

SUPPORT FOR MEDITERRANEAN DIET

Since then, a succession of prestigious healthcare institutions—the American Diabetes Association, the American Heart Association and the Mayo Clinic, among other household names—have followed suit in declaring their support for the Mediterranean diet.⁵

Strangely enough, despite of, or perhaps because of, the

Mediterranean paradigm being in vogue for so long, and hence subjected to the endless scrutiny of scholars and the general public, no one seems to agree on a definition.

Most often, it is described in the broadest of terms: "characterized by the balanced use of foods rich in fiber, antioxidants and unsaturated fats," a 2013 journal article states.

continued on pg. 18



Potato is a Nutrition Powerhouse . . .

continued from pg. 17

Listing out macronutrients and compounds that appear in dozens, if not hundreds, of diets beyond the Mediterranean does not get us any closer to consensus.

But this generality is not such a bad thing. It gives us the opportunity to review the facts and write our own definition, one that brings potatoes to the forefront.

Over time, certain vocal parties have succeeded in pushing the tuber further down the pecking order of foods in the Mediterranean model, sometimes excluding it altogether.

This trend, in large part, owes itself to the work of scholars who use solitary, narrow measuring sticks, like the glycemic index (GI), to vilify potatoes in absolute terms, an approach that T. Colin Campbell, co-author of the landmark China Study, would wave off as "reductionist biology."⁷

You only need to bring a second metric into the equation to see just how flawed this logic is.

NO FOOD IS MORE FILLING

According to the Satiety Index (SI)
—a food value scoring system coined



Food balance sheets serve as indisputable confirmation of the potato's place in classic, timeless diets that are regarded without exception as healthy.

by University of Sydney scientist Susanna Holt—there is no food more filling than boiled potatoes: at 323 percent (100, the baseline, is where white bread sits), they are nearly 100 percent more filling than the secondmost satiating food, found to be ling fish.⁸

Boiled potatoes are almost twice as satisfying as beef (176 percent), more filling than much-celebrated brown

rice (132 percent) and over four times as hunger-alleviating as a Mars candy bar (70 percent).8

Why would this matter? There are strong indications that satiety correlates to improved weight management.

One widely cited study found a high likelihood that "negative energy balance"—i.e. a fat-burning metabolic state—resulted from "lower spontaneous energy intake brought about by enhanced satiety."9

But in the Glycemic Index's appraisal, chocolate (GI=~40) would be deemed doubly superior to boiled potatoes (GI=~78).

It's far-fetched to think that a dietician would ever prescribe, to someone striving for balanced eating, a full-on candy bar binge rather than a handful of boiled potatoes that deliver a satiated feeling at a fraction of the calories, and with a host of nutrients to boot.

And yet, this is the case when the Glycemic Index becomes the be-all, end-all. The math does not add up

MACHINE

CHROME ALLOY WEAR PARTS

* * See all our parts online at www.rhmachine.com * *

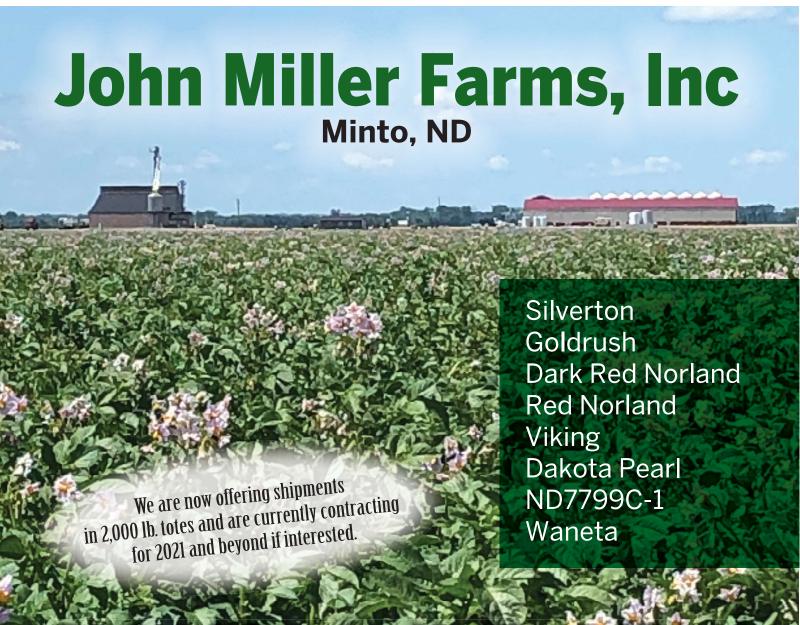
R & H Machine offers an extensive line of cultivator points and shovels to fit S-tine, KMC, Triple K, and C shanks. All are cast of high Chrome Alloy to give extremely long life in abrasive soils. Our parts outwear standard or hardfaced points by an average of twenty times.

- Maintain uniform tillage
- Save costly downtime
- Cut replacement costs
- Uses standard hex-head bolt
- Shock absorbing washers ~ with each order ~

R & H MACHINE • 115 ROEDEL AVE • CALDWELL, ID 83605 • 1-800-321-6568

Setting the Standard for Wear!

continued on pg. 20



Dryland Grown...Northern Vigor!









North Dakota Certified Seed Potatoes

Contact John Miller: (701) 248-3215

Potato is a Nutrition Powerhouse . . .

continued from pg. 18

here, that much is obvious.

For the potato's adversaries, arithmetic does not matter. For most of the populace, however, it does, presenting us with the platform to drive home the point to the public that potatoes, when viewed in a different light, come out on top.

NO MERE AFTERTHOUGHT

Inevitably this argument won't cut it for the adversarial parties who will likely attempt the claim that the Mediterranean model and many others like it include the potato as an afterthought, if at all.

That becomes a tough claim to make the moment data (courtesy of FAOSTAT) enter the fray.

In both per capita consumption and availability, the potato is clearly a prominent staple in the Mediterranean region, and in some cases, it is eaten in greater quantities than in the countries we tend to think of as "potato-centric."

The most recent census data show that in the United States, Japan and Mexico, per capita daily consumption clocks in at 85 kilocalories (kcal), 39 kcal and 28 kcal per day, respectively.

If these seem like decent volumes, consider that four core Mediterranean states—Morocco, Greece, Spain and Portugal—outstrip these numbers by a long shot. Their per capita consumption rates are, in



The literature also offers up ample evidence for the tuber as a resilient and resource-efficient crop, well-adapted for a future in which volatile weather seems likely to worsen while arable land and fresh water sources grow scarcer.

turn, 94, 102, 103 and 122 kcal.¹⁰

That is as close to objective as evidence gets that, in the geographic cradle of healthy eating, potatoes are alive and well as ever.

For years, diets have governed over the landscape of consumption with an iron fist.

In fact, they have gained such power over us that, at times, we're guilt-ridden not only when we commit infractions—in the form of "unhealthy" indulgences—but also when we make the most minor and mundane of dietary decisions.

THE HEALTH CONSCIOUS

For the health conscious, the worry lingers: What if I choose the lesser of two options?

Even when the labels look identical to our naked eye, they're not, according to the creators of websites like "Eat This, Not That!"

It comes as little surprise, then, that experts are predicting 2020 as the year that consumers finally rise and rebel against ascetic eating regimens.

A January 2020 article in *Business Insider* reported on a recent poll that revealed a majority of Americans were leaning towards "intuitive eating," which, in contrast to the hard and fast laws of a diet, offers only general guidelines like "honor your hunger" and "feel your fullness." ¹¹

A growing body of research suggests that intuitive eating elevates self-confidence, psychological resilience and even exercise habits to a greater extent than standard diets.¹²

These are anxious times. We are forging ahead into a new decade with everything from trade relationships to entire economies being cast in uncertainty and unease.

The potato as the ultimate comfort food offers us needed respite. We should not have to call upon obscure metrics like the Satiety Index to prove the potato's worth in the modern era.

In the end, the capacity of the potato to provide physical and emotional fulfillment speaks for itself. BCT

Works Cited

Altomare, Roberta, Francesco Cacciabaudo, Giuseppe Damiano, et al. "The Mediterranean Diet: A History of Health."



- *Iran Journal of Public Health,* May 2013. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684452/.
- Bégin, C, Carbonneau E, Gagnon-Girouard MP, et al. "Eating-Related and Psychological Outcomes of Health at Every Size Intervention in Health and Social Services Centers Across the Province of Quebec." American Journal Health Promot, February 2019. https://www.ncbi.nlm.nih.gov/pubmed/29986603.
- Boucher, Jackie L. "Mediterranean Eating Pattern." *Diabetes Spectrum*, May 2017. https://spectrum.diabetesjournals.org/ content/30/2/72.
- Browman, David & Gundersen, James.

 "Altiplano comestible earths: Prehistoric and historic geophagy of Highland Peru and Bolivia." *Geoarchaeology*, October 1993. https://onlinelibrary.wiley.com/doi/abs/10.1002/gea.3340080506.
- Campbell, TC. "Nutritional Renaissance and Public Health Policy." *Journal of Nutritional Biology*, August 2017. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5701757/.
- Dinu, M, G Pagliai, A Casini, and F Sofi.

 "Mediterranean Diet and Multiple Health
 Outcomes: an Umbrella Review of MetaAnalyses of Observational Studies and
 Randomised Trials," May 2017. https://
 www.nature.com/articles/ejcn201758.
- FAOSTAT New Food Balances. Food and Agriculture Organization of the United Nations (FAO), December 19, 2019. http://www.fao.org/faostat/en/#data/FBS.
- Hess, Tim, Julia Chatterton, Andre Daccache, and Adrian Williams. "The Impact of Changing Food Choices on the Blue Water Scarcity Footprint and Greenhouse Gas Emissions of the British Diet: The Example of Potato, Pasta and Rice." Journal of Cleaner Production, January 2016. https://dspace.lib.cranfield.ac.uk/bitstream/handle/1826/14742/impact_of_changing_food_chices-2015.pdf.
- Holt, SH, JC Miller, P Petocz, and E Farmakalidis. "A Satiety Index of Common Foods." *The European Journal of Clinical Nutrition*, September 1995. https://www.ncbi.nlm.nih.gov/pubmed/7498104.
- Landsverk, Gabby. "'Intuitive Eating' Is on the Rise, and Experts Say It's Because People Are Fed up with Diet Culture." Business Insider, January 21, 2020. https:// www.businessinsider.com/what-is-intuitiveeating does-it-work-2020-1.
- Mann, Charles C. "How the Potato Changed the World." *Smithsonian Magazine*, November 2011. https://www. smithsonianmag.com/history/how-thepotato-changed-the-world.

- "Mediterranean Diet." Oldways. Accessed January 29, 2020. https://oldwayspt.org/traditionaldiets/mediterranean-diet.
- Paddon-Jones, Douglas, Eric Westman, Richard D. Mattes, et al. "Protein, Weight Management, and Satiety." *The American Journal of Clinical Nutrition*, May 2008 https://academic.oup.com/ajcn/article/87/ 5/1558S/4650426#111220274.

References Cited

- 1 Browman, David & Gundersen, James. "Altiplano comestible earths: Prehistoric and historic geophagy of Highland Peru and Bolivia." *Geoarchaeology*, October 1993. https://onlinelibrary.wiley.com/doi/abs/10.1002/gea.3340080506.
- 2 See, for example, Hess et al. "The Impact of Changing Food Choices on the Blue Water Scarcity Footprint and Greenhouse Gas Emissions of the British Diet: The Example of Potato, Pasta and Rice." *Journal of Cleaner Production*, January 2016.
- 3 Dinu et al. "Mediterranean Diet and Multiple Health Outcomes: an Umbrella Review of Observational Studies and Randomised Trials." European Journal of Clinical Nutrition, May 2017.
- 4 "Mediterranean Diet." Oldways. Accessed January 29, 2020.

- 5 Boucher. "Mediterranean Eating Pattern." Diabetes Spectrum, May 2017.
- 6 Altomare et al. "The Mediterranean Diet: A History of Health." *Iran Journal of Public Health*, May 2013.
- 7 Campbell. "Nutritional Renaissance and Public Health Policy." *Journal of Nutritional Biology*, August 2017.
- 8 Ibid.
- 9 Paddon-Jones et al. "Protein, Weight Management, and Satiety." *The American Journal of Clinical Nutrition*, May 2008.
- 10 Country Food Balance Sheets, *FAOSTAT*, December 2019.
- 11 Landsverk. "'Intuitive Eating' Is on the Rise, and Experts Say It's Because People Are Fed up with Diet Culture." *Business Insider*, January 2020.
- 12 Bégin, C, Carbonneau E, Gagnon-Girouard MP, et al. "Eating-Related and Psychological Outcomes of Health at Every Size Intervention in Health and Social Services Centers Across the Province of Quebec." *American Journal Health Promot*, February 2019.

