

Change is coming—to our plates! Take a look at what's ahead.

hen you think of eating in the future, you might imagine Jane Jetson's impressive setup, where she whipped up a full dinner in seconds by pressing a few buttons. This isn't too far from reality: New smart ovens can function as multiple appliances and figure out on their own how food should be

cooked. And our groceries are changing, too. In the name of sustainability, scientists and big food brands are making fake seafood in labs, turning beans into eggs and conjuring butter out of water. We're on the cusp of a whole new culinary era, with breakthroughs coming at lightning pace. Check it out...



Smart appliances and high-tech ingredients are transforming everyday foodsstarting with your first meal of the day.

MOLECULAR COFFEE — Coffee beans are one of many crops

threatened by climate change, so a Seattle start-up called Atomo is creating a drink that looks and tastes like coffee but is derived from ingredients like watermelon seeds and sunflower seed shells. Cold brew could hit the market this year, with grounds and whole "beans" to follow.





MEAT-FREE -SAUSAGE

Beyond Meat started selling

its plant-based sausage patties in supermarkets last month, and the company is at

SOLAR-POWERED

Solar developers have been teaming up with beekeepers to create spots for bee-friendly plants around solar panels. The results are now showing up in stores: The cofounders of Clif Bar are selling solar-grown honey, and craft breweries like 56 Brewing in Minneapolis are turning solar honey into IPA.



The touch-screen display on Revolution Cooking's new \$300 R180 high-speed smart toaster lets you choose from seven shades of browning; sensors adjust the heat based on bread type.

EGGLESS EGGS

Just Egg, a vegan mung beanbased substitute that hit select stores last year, is going wide: Sodexo, one of the country's biggest food-service providers, has started serving it in hospitals and college dining halls. Meanwhile, Eunite Foods has introduced The Egg, a powder made from a freshwater microorganism called euglena; it's currently sold online only.

ALTERNATIVE BUTTER

Cornell University food scientists recently formulated a low-cal spread that is 80 percent water. The creators say it could hit the market in several years, but in the meantime, try other innovations: Country Crock sells "plant butter" made from olive, avocado or almond oil, and Miyoko's Creamery recently launched spreadable cultured "butter" made from oat milk.



ROBOTS AT THE DOOR

The country's biggest pizza chains have started testing robotic delivery. Last year Pizza Hut announced it was teaming up with FedEx to employ SameDay Bot, a robot that can navigate steps to deliver a pie to your door. Domino's is trying its own robots in Houston, with plans to expand in the coming year.

ECO-FRIENDLY BOXES

Pizza Hut recently tried out new compostable packaging made from sustainably harvested plant fiber. They're round to reduce waste.

EXTREME ORDERING

You may be able to one day order a pie just by thinking about it. Pizza Hut has tested subconscious ordering (which tracks eye movement), and Domino's is working on its own high-tech ordering, part of the research at its 33,000-square-foot tech incubator, the Innovation Garage.

Pizza Hut



in the

Dairy-free ice cream doesn't sound revolutionary—pints made from cashews, oats and coconuts have been on shelves for years. But ice cream innovators want to do for frozen treats what Impossible Foods and Beyond Meat did for burgers: create a hyper-convincing replacement. Eclipse Foods's ice cream base, made from inexpensive ingredients like cassava and corn, has a rich texture and a fairly neutral taste, making it a blank canvas for small-batch scoop shops like OddFellows and Humphry Slocombe. Expect more ice cream makers to start using it this year, and possibly fast-food chains down the road.



Soon you'll be able to have your spoon and eat it, too. To reduce plastic waste, companies are developing edible utensils. Spoons by Planeteer are already for sale on Amazon; they're made of oats and barley and come in flavors like Indian masala and chocolate. Keep an eye out: You might see them at a major ice cream chain later this year!



in the know



Like magic, the start-up Air Co. is making spirits from thin air: The company uses solar power to turn excess carbon into vodka. Bottles have already appeared at high-end restaurants and bars like New York City's Gramercy Tavern and Employees Only. The company plans to expand into five new markets by 2021.



Making your own beer will soon be as simple as pushing a button. Start-up PicoBrew sells a countertop appliance that brews beer in two hours, and LG plans to launch its own system (pictured above) with single-use capsules that contain malt, yeast, hop oil and flavoring for IPAs, witbiers and more.



The wine bottles of tomorrow will likely fit through a mail slot. UK-based company Garçon Wines has won sustainability awards for creating flat bottles that take up 40 percent less space than typical packaging; they're made from recycled plastic. The company will bring the bottles to the US this year.



Instagram has created a whole new market for designer fruits and veggies. The seed brand Row 7 is beloved by chefs for its eye-catching vegetables, like the fiery orange Badger Flame beet and palm-size 898 squash, and the company will release a violet-colored tomato this fall. Meanwhile, farms across the country are growing this striking pink radicchio. Highconcept fruit flavors are coming, too. Driscoll rosé strawberries and raspberries will return this summer, and International Fruit Genetics, the company behind cotton candy grapes, is working on a new mango lollipop grape.



VEGETABLES. RALPH SMITH; FOOD STYLING: ADRIENNE ANDERSON. COCKTAIL: RALPH SMITH. BEER: CHRIS ECKERT/STUDIO D. WINE: LEVI BROWN.



Long checkout lines could become a thing of the past. With Amazon's register-free stores leading the pack, chains like Giant Eagle and Sam's Club have started testing cashier-free locations where you check out on your phone—or not at all. (Amazon Go stores keep track of what's in your cart and charge your Amazon account via the app when you leave.) Kroger also recently partnered with Microsoft to create "smart shelves" that light up when shoppers walk past an item they put on their list in the Kroger app.



Not all seafood will come from the ocean. To combat overfishing, some start-ups have cultured fish and shellfish cells to create sustainable options.



Wild Type tested its cell-based salmon prototype last year at the Portland, OR, restaurant Olympia Oyster Bar with dishes like ceviche and poke.



Finless Foods, which has tested tilapia and trout prototypes, is developing a product that mimics bluefin tuna.



Shiok Meats plans to launch cell-based shrimp in Singapore restaurants in 2021 and eventually license the technology in the US.



The ovens of tomorrow will do a lot more than bake and broil.



WLABS SMART OVEN

Whirlpool's new countertop oven can replace your toaster, slow cooker and air frver, and it's smart enough to tell the difference between frozen chicken, beef and fish.



KITCHENAID SMART OVEN+

Inspired by its popular stand mixer, KitchenAid's oven comes with interchangeable attachments (grill pan, steamer and baking stone) that you can control from your phone.



BREVILLE COMBI WAVE 3 IN 1

This oven functions as a microwave, air fryer and convection oven-and lets you cook food straight from the freezer so you don't have to deal with thawing it.



BRAVA

This eco-friendly oven is preprogrammed to cook travs of assorted foods with precision, using infrared lights that fire up so quickly, there's no need to preheat.



JUNE OVEN

The second-generation June can be voice-activated through Alexa, and its internal camera can recognize food and figure out the cooking time.



LG INSTAVIEW RANGE

This new range doubles as an air fryer and has a cleaning function that steams off grime in 10 minutes. Knock twice on the oven door and the light goes on.



TOVALA SMART OVEN

The scanner on this oven identifies hundreds of frozen foods (plus the company's own meal kits), so it can determine which combo of steaming, baking and broiling is best.



AMAZON SMART OVEN

You can sync this oven with an Echo device and ask Alexa to preheat it, or scan packaged food with the app and the oven will take over the cooking. Alexa will call you when dinner's ready.



These next-level devices will help you make artisanal foods and drinks right at home.



PERSONAL

I G has unveiled Snow White, a prototype for a gadget that turns shelf-stable



capsules into single servings of ice cream, sorbet, gelato and frozen yogurt.



TABLETOP **CHOCOLATIER**

The Palo Alto, CA, start-up CocoTerra is running final tests on an appliance that transforms cocoa nibs, milk powder, sugar and cocoa butter into premium chocolate in about two hours.



Another cutting-edge company, Mycusini, has started selling a 3-D chocolate printer and cartridges in Europe.



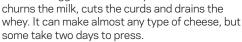
SMART COASTER

Would you spend \$149 on a coaster? What if it could help you mix a perfect cocktail? Barsys, a company that created a robotic home-bartending system, is selling a coaster that helps you make whatever cocktail you select from its app by changing color to indicate how much of each ingredient you should add.



AUTOMATIC CHFFSFMAKFR

By the end of this year, you'll be able to make fresh mozzarella. cheddar and more at home. You just add milk, culture and rennet, then Fromaggio automatically





We asked scientists and food trend experts to make some predictions.



PERSONALIZED PRODUCE

Agricultural innovations like indoor farms and personal smart gardens will make seasonal fruits and vegetables old news, predicts Jenny Zegler, a global food and drink trends analyst at Mintel. Your salad will be tailor-made, with leafy greens bred to deliver specific nutrients and strawberries picked when they're just as sweet or tart as you like.

MORE OYSTERS

Oysters can each filter up to 50 gallons of water per day, so they could play a bigger role in fighting ocean pollution. Sarah Smith, a research director in the Food Futures Lab at the Institute for the Future in Palo Alto, CA, predicts current efforts to re-establish oyster habitats will continue, landing more of the sustainable shellfish on our plates by 2050.



HIGH-TECH SEASONING

Appliances will be able to prepare complete meals at the push of a button, says Alon Chen, the CEO of a start-up called Tastewise that uses artificial intelligence to predict food trends. The new technology will customize spice levels based on personal palates.



DIVERSE INGREDIENTS

Think you have a varied diet? Most of our food comes from just 12 crops and five animal species—which leaves our food system at risk ecologically.

At his company The Future Market, Mike Lee creates concept products based on nascent food trends. Someday, he says, you might eat "killer" fish sticks, made from invasive fish species, and buy 5-pound bags of taro root flour.



MFAI -RFPI ACEMENT CUBES

If Matthew Elonis from Meepo has his way, one day soon we'll be able to eat a nutrient-packed 350-calorie dinner in the form of a 1-inch cube. His company is introducing its bite-size meals to the military later this year, with plans to eventually serve hospitals and airlines.