

SCHOOL OF MARINE AND ATMOSPHERIC / CHARLES FLAGG

The Fire Island breach in April. The presence of brown tide at Great South Bay may be aggravated by the breach, an SBU scientist says.

Dairy firms betting on A2 milk

The Associated Press

Milk got your stomach feeling sour?

Dairy companies looking for ways to appeal to people who avoid milk because of indigestion are promoting what they describe as a natural, easier-drinking alternative. It's called A2 milk, which is produced by a subset of cows that produce milk lacking a protein that backers say is associated with milk's dyspeptic tendencies.

That A2 claim has its skeptics, but the bet is that consumers will pay an extra dollar or more per half-gallon to drink milk that might not cause indigestion, gas and bloating.

"Our approach has been, 'Listen, if you thought you had trouble with milk, try our A2 milk because you may be able to have it,'" said Dan Ripley, whose family farm in central New York has both ordinary cows and those producing what he sells as "Premium A2 Guernsey" milk.

Most cows produce milk that contains both A1 and A2 proteins. Backers of this milk claim the A1 protein can cause bloating and other symptoms because of the way it breaks down when digested.

Some cows naturally produce milk without the A1 protein, and farmers can breed those cows with an eye toward building a herd that produces milk that only contains the A2 protein.

This kind of milk still has lactose, but proponents say it could help people who mistakenly assume they're lactose intolerant.

Not everyone is convinced.

The National Dairy Council, which represents U.S. dairy farmers, said the claim remains an unproven theory.

Bruce German, director of the Foods for Health Institute at the University of California, Davis, said existing studies have either methodological flaws or may have issues because they are funded by the industry.

BREACH MAY FUEL ALGAE

Fire Island gap hurts circulation, scientist says

BY JOAN GRALLA
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Despite a cool spring, yet another noxious brown tide has returned to the Great South Bay, as it has every year since superstorm Sandy cut a breach in Fire Island.

There might be a possible cause and effect between the bloom and the breach, according to a Stony Brook University scientist.

The bay-to-ocean channel has won praise from fishermen and environmentalists for cleansing nearby water.

However, the breach might aid algae blooms by reducing water circulation, said Chris Gobler, a professor at Stony Brook's School of Marine and Atmospheric Sciences.

"The new inlet is a big plus for water quality along the eastern part of the bay and the western Moriches," said Gobler, who also co-directs Stony Brook University's Center for Clean Water Technol-

ogy that aims to improve septic systems.

Yet, "certain areas at the center of the bay are a little more stagnant; they don't flush out quite as well," he said.

"And that may be just enough," he said, for brown tide to have already taken hold a little early — and possibly setting the stage for a repeat of last year's record-setting densities.

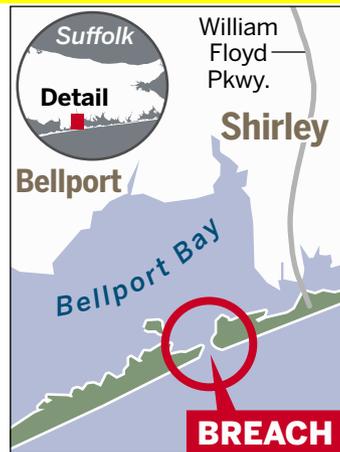
Resembling cocoa, brown tides kill marshes and the eelgrass fish need for food, breeding and their young. And baby clams die off, checkmating efforts to restore them to improve water quality.

The blooms have occurred off and on since the 1980s, but this year's bloom will be the sixth in a row, a new record, dating from the year after Sandy opened the breach.

Long Island's brown tide algae "usually grows fastest between [20 to 25 Celsius]," said Gobler, which works out to 68 to 77 degrees on the Fahrenheit scale. The sunlight-choking algae can stick around until the water climbs to above 80 degrees Fahrenheit.

Scientists cannot say how long the breach will stay open.

"I think we are clearly head-



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ing toward closure, and sooner rather than later," wrote Charles Flagg, a professor at Stony Brook University's School of Marine and Atmospheric Sciences, who analyzes the breach, on his website.

"In the past, the nor'easters have been able to clear out the channels but that has not happened during the recent storms. In fact the storms seem to be depositing more sand."

The main cause of brown tides and other blooms has been known for decades: too much nitrogen, mainly from people and fertilizers.

More than two-thirds of Suf-

folk's homes rely on septic systems that do little or nothing to remove nitrogen. The county hopes to entice homeowners to upgrade to advanced systems and is working on a limited number of sewer connections.

Nassau's Bay Park Sewage Treatment Plant, undergoing a multiyear upgrade, has been releasing 52 million gallons of treated sewage daily into Reynolds Channel, which feeds into the Great South Bay to the east.

Some locations elsewhere, like Florida's Tampa Bay, have made considerable progress in curbing nitrogen.

Since the 1970s, "We've seen a precipitous drop" in algae blooms, said Ed Sherwood, executive director of the Tampa Bay Estuary Program.

Developers, localities, farmers, industries and the like devised more than 400 solutions, from strict zoning laws to requiring wastewater treatment plants to either use advanced systems or re-use 100 percent of their water for irrigation, for instance, he said.

With the clear water, "We actually exceed all historic levels of sea grass," he said, citing data going back to the 1950s.