

Cornell Study Finds Secret Of Bacterial Penetration Of Eggs

With its several protective layers, the egg is looked upon as one of nature's marvelous engineering jobs in its ability to keep off egg spoiling bacteria.

Despite the shell, membranes, and other barriers, microbes penetrate into the egg — a mystery that has long baffled scientists.

Cornell University researchers, who have been searching clues to the secret for years, now believe that the microorganisms "squeeze" through the minute pores in the membranes to get at the nutritious parts of the egg — the egg white and the yolk.

This is a surprise to many who have held a theory that the microscopic creatures drill "holes" in the membranes with enzymes, substances capable of breaking down organic chemical compounds.

The Cornell researchers found that microbes, without the help of enzymes, react with chemical components of the membranes at the molecular level in such a way that the bacteria slip inside as if they were sucked in.

Mrs. Elaine R. Wedral, a graduate student in food science at the N. Y. State College of Agriculture, Cornell, who made the discovery, says: "Microbes don't leave any visible trace in the membranes after penetration."

She found that some bacteria excrete chemical compounds called "chelating agents" in their metabolites, or waste products.

The chelating agent may pull metal ions (electrically charged atoms) from the membranes in chemical interactions, making the membranes more permeable. This appears to be the way in which penetration takes place, she said.

Bacteria penetrate into older eggs more rapidly than into fresh eggs, and this may be due to the fact that bacteria can grow more rapidly on older eggshell membranes, she reported.

Another probable reason is that greater quantities of iron can be extracted from the membranes of older eggs and the membranes themselves become more permeable upon aging, she pointed out.

On the basis of her work, Mrs. Wedral is now advancing the new theory that bacterial penetration basically involves the phenomenon of "ionic reactions" between metabolites of the microbes and some of the chemical components of the membranes.

Births

Feb. 2: To Mr. and Mrs. David Palmiter, Wellsville a son.

Feb. 2: To Mr. and Mrs. Earl Nye, Wellsville, a daughter.

Feb. 4: To Mr. and Mrs. Oscar Solomon, Friendship, a daughter.

Feb. 5: To Mr. and Mrs. Joe Hotchkiss, Belfast, a son.

Feb. 5: To Mr. and Mrs. Benjamin Bloch, a daughter.

Feb. 6: To Mr. and Mrs. George Locke, Whitesville, a son.

Feb. 8: To Mr. and Mrs. James Norris, Belmont, a son.

Deaths

Tracy Lynne Nye, infant, Wellsville, Feb. 3. Her parents and a brother survive.

Mrs. John Bush, 83, Wellsville, Feb. 7. Her husband, a son, two grandchildren and a sister survive.

Mrs. Eugene Wigent, 72, Belmont, Feb. 6. Her husband, a son, two daughters, four sisters and three brothers survive.

Mrs. Leslie Cross, 80, Wellsville.

Self-Employed Can Deduct Moving Expenses

Self-employed persons are now entitled to deduct moving expenses on Federal income tax returns, John E. Foley, District Director, Internal Revenue Service, Buffalo, said today. The Tax Reform Act of 1969 not only liberalized rule on deducting moving expenses but extended the deduction to self-employed people.

Additional deductions under the new law are now permitted for pre-move house-hunting trips, temporary living expenses at the new location for up to 30 days while looking for a permanent place to reside, and expenses related to selling a residence or settling a lease.

The total tax deductions for the three categories of expenses may not exceed \$2500, with the deduc-

tions for house-hunting and temporary living expenses limited to \$1000.

Deductible moving expenses include the cost to the taxpayer for moving himself, his family, household goods, pets, and personal effects from the old residence to the new one. For the taxpayer to qualify for the moving expense deduction, his new place of work must be 50 miles farther from his former home than his former place of work.

A self-employed person is required to perform services full-time for at least 78 weeks during the 24-month period following arrival at the new location. And not less than 39 of the 78 weeks services must be performed in the first twelve months. Full-time employees need to meet only the 39-week rule to deduct expenses.

Cured and smoked hams, unless labeled "fully cooked", require further cooking to assure good texture and flavor.

Use the Classified Ad Section

Andover Senior Youth Fellowship To Meet

The Andover Senior Youth Fellowship will meet Sunday evening at 7:00 p. m. at the home of Earl Atwell. Father Joe Florio, assistant pastor at Blessed Sacrament Church, will lead the discussion on Abortion.

Appreciation

I want to thank all for the cards, letters and kindnesses shown to me and also for the many phone calls I received while in the hospital and at my daughter's home in Belfast for two weeks. Many thanks.

Addie M. Cook

Appreciation

At this time I would like to thank my friends and relatives for the cards, gifts, phone calls and visitations while I was in the hospital. Also for the acts of kindness extended to my wife.

Earl Atwell

CHRYSLER
Plymouth

We just made our newest Chrysler our lowest priced Chrysler. So you can get into luxury easier.

Chrysler Royal
4-Door Hardtop

Chrysler ROYAL

Now we can move you all the way up to Chrysler luxury. Royally. Really. Because our new Chrysler Royal has all the things that make Chrysler great: A larger interior than any other car in its class. A new 360 cubic inch V-8 that runs on regular, Torson-Quiet Ride... for the lowest Chrysler price of all. Chrysler Royal. For the right way to move up, you've got to come to the right place. C'mon through Our Place. We'll come through for you.

We're coming through with better buys for you

Be a good Scout!

BUY GIRL SCOUT COOKIES

Juniata Girl Scout Troop 187 and Cadette Girl Scout Troop 211 will be taking ORDERS for Girl Scout Cookies FEBRUARY 5 - 15. The Cookies will be delivered March 4 - 15th. The girls will be stopping at your home. Please buy and help our Local Troops.

Pfanniner Sales & Service
Railroad Avenue
Wellsville, N. Y.