

Agriculture, is working on a refinement of the system to permit anestrous females—those whose estrous cycles have been temporarily stopped—to be brought into estrus, thus permitting the entire herd's reproductive cycle to be synchronized.

Prostaglandins also are used in pig production, this time to shorten a pregnancy so that a producer can be present when it's time for his sows to give birth. A specific prostaglandin permits control of the time of birth to within 24 to 30 hours. More baby pigs can be saved if a producer is present at farrowing time, and use of the prostaglandin permits the producer to schedule farrowing for a convenient time.

Obviously, prostaglandins play a role in an astonishing variety of biological processes. Yet until recently nothing was known about their actions. "There's still so much that hasn't been discovered yet," says Fried.

One area about which little was known until the recent spurt in research was that of prostaglandin production. A good deal of research is now done into why prostaglandins are produced.

Dr. William Lands of the University of Illinois Medical Center in Chicago, is studying possible connections between nutrition and prostaglandin synthesis. According to Lands, prostaglandins, thromboxanes and leukotrienes are produced from precursors that are produced by dietary polyunsaturated fatty acids. Varying intake of foods that provide PUFA could affect prostaglandin production, he says.

Prostaglandins, thromboxanes and leukotrienes are classed as eicosanoids and are produced from an arachidonic precursor. Their conversion is accomplished with various enzymes. Different enzymes are responsible for production of different eicosanoids. Aspirin blocks certain enzymes responsible for the conversion of arachidonic acid, but not others. Because of this, it affects some prostaglandin functions without affecting others.

No generally accepted theory is available as to why prostaglandins and related compounds are produced, or what their role actually is. Researchers believe prostaglandins serve as both an alarm and a regulatory function in the body. The alarm function may be that they are produced to signal to the body that something is wrong, or that some change has taken place.

The fact that every tissue produces prostaglandins, with functions peculiar to that tissue, suggests that prostaglandins may serve a regulatory function. The theory is that the prostaglandins are the regulatory substances of the body, and that their presence in the various tissues may be the body's way to control the different parts of the systems. Lands refers to the eicosanoids as "defense mobilization substances" that, he says, can be considered both as alarms and regulatory substances.

Eicosanoids can overreact and this is the cause of many human disorders, Lands says. According to Lands, such disorders as heart attacks, strokes, asthma, arthritis and even sunburn can be traced to an imbalance of eicosanoids. Although researchers know that such imbalances are associated with many disorders, they don't know yet what causes the imbalances. They want to learn what actually stimulates prostaglandin production, and what is responsi-

ble for imbalances in prostaglandin levels.

"The more we learn, the more we realize how ignorant we really are," says Lands. But each new insight presents a new pathway for exploration. Prostaglandins and their related compounds may be a key to solving many of the biological mysteries that have puzzled scientists for many years.

## Traders seek aid

Oilseed and oilseed product marketers around the world are seeking governmental actions or inactions to improve their sales opportunities.

The EC Seed Crushers and Oil Processors' Federation (FEDIOL) has sought European Commission (EC) action on a complaint that Argentine oil meal exports to Europe are improperly supported by various tax and financial schemes. If the EC agrees with FEDIOL, it could levy an extra import duty on Argentine meal.

Meanwhile, the National Sunflower Association in the United States has decided not to pursue a complaint that Argentina was engaging in unfair competition. The complaint may be resubmitted later.

Argentina and Brazil were targets of a National Soybean Processors Association (NSPA) complaint, which the office of the U.S. Trade Representative decided to try to resolve through bilateral talks. NSPA complaints about Spain, Portugal and Malaysia remain active.

U.S. complaints against a proposed vegetable-oil consumption tax within the EC drew support from the Economic Ministers of the Association of South East Asia. Additional objections were expected to be filed by Singapore, the Philippines and Thailand. Southeast Asia's palm oil industry might be hurt by the proposed tax. The EC failed to reach agreement concerning the tax during a meeting in Greece, but the topic was expected to be discussed at another meeting of the commission this month.

## Follow the sun

The National Sunflower Association is gearing up a 2-year sunflower-oil promotional campaign to be called "Follow the Sun."

The campaign is designed to increase domestic use of sunflower oil in institutional markets—the food companies that use edible oils to produce snack food, bakery goods and processed foods. Based on a market analysis by Experience Inc., NSA believes potential users have inconsistent and sometimes incomplete information about sunflower oil. NSA will add a staff member, who will be a food technologist or chemist, whose assignment will include providing information to food-industry scientists and maintaining contacts with the food-processing industry.

Promotion of sunflower oil directly to consumers will be left to the food companies marketing products containing the oil.