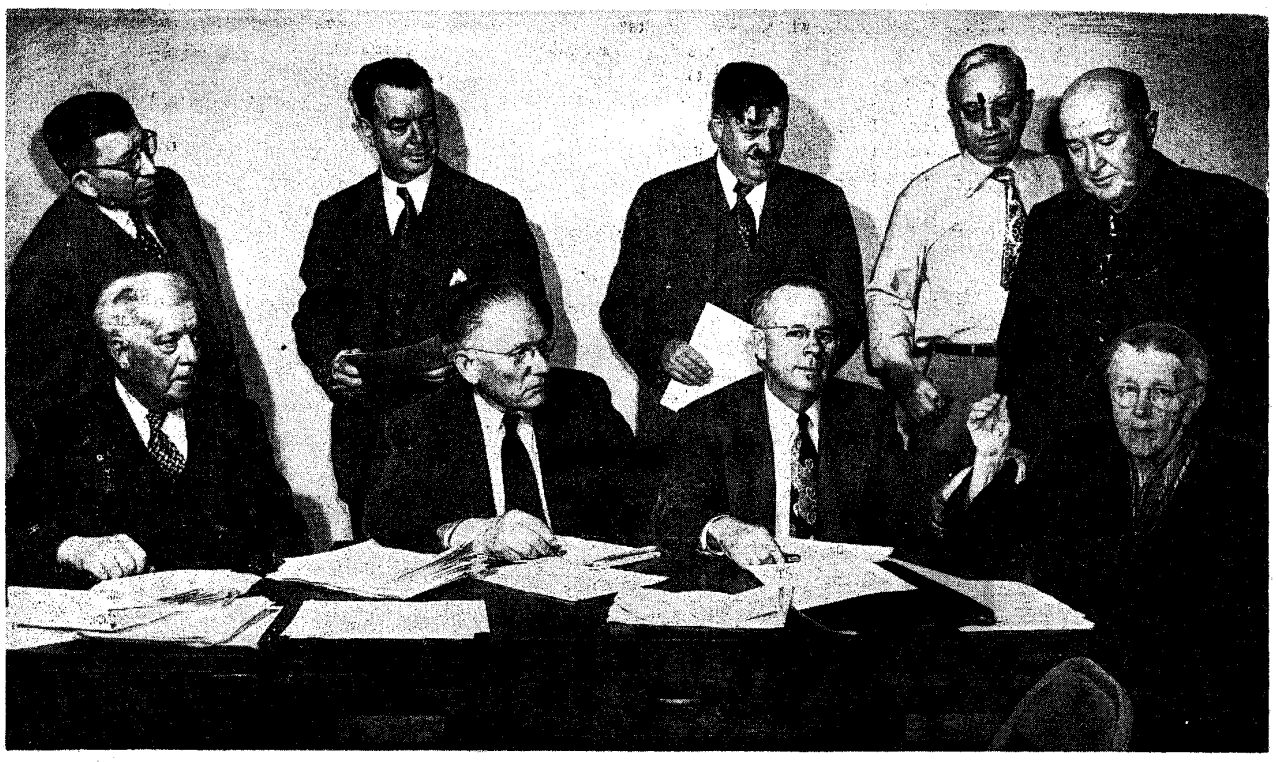
Diseases of Man and Animal Caused by Starvation Amid Plenty



NUTRITIONAL CLINIC—Doctors interested in trace minerals therapy had a field day yesterday as they questioned numerous patients who have been taking trace elements medicines—all but one for treatment of undulant fever. The one exception, Mrs. Eunia Roby of Republic, shown above, was treated for a form of eczema. Seated, left to right, are Dr. L. W. Kuttler, Cleveland; Dr. C. C. Landis, Chico, Cal.; Dr. W. H. Cooper, a dentist, Oklahoma City, and Mrs. Roby. Standing, left to right, are Dr. William Albrecht, chairman of the soils department at MU; Dr. Lawrence Smith, Des Moines; Dr. Francis Pottenger, Jr., Monrovia, Cal.; Dr. H. Trautmann, Madison, Wis., and Dr. Ira Allison, Springfield. After doctors had thoroughly questioned each patient, Dr. Trautmann would summarize the case for the benefit of other doctors attending the clinic.

Trace Elements Experiments Here Turning Up Some Amazing Results

By TOM A. ELLIS

(The following reprints are reproduced from the Springfield Daily News and Leader.)

A series of experiments conducted right here in the Ozarks the past two and a half years may, in a quiet, beneficient way, have a greater effect upon more people in the world than anything since the atomic bomb.

Certainly, the experiments have already gone far enough to warrant a definite promise of untold value to the farmer in the future growing of livestock, and to the race of man in the improvement of health. For the farmer, these experiments appear to offer a means of eradicating the dread Bang's disease in cattle, for which neither an effective preventive nor good cure has ever been found. For man, they promise much in the way of cure and prevention of undulant fever and other diseases which now appear to be based on dietary deficiency.

Cooperating in these experiments are three Ozarks farmers, a Springfield physician, two nationally-known agricultural scientists at the University of Missouri, aided and financially backed by the International Harvester company and several chemical and fertilizer plants.

But let's go back to the beginning of the story.

For many years Dr. Ira Allison, 155½ Public Square, has been interested in the treatment of nutritional ailments. Over the years he became more and more convinced that a good many of the diseases of modern man are based, primarily, on malnutrition. And a great deal of that malnutrition, he was certain was peculiarly enough a "starvation-on-a-full-stomach" type.

In other words, he believed that a man might literally be starving even while eating an ample supply of what we might term the "proper foods"—starving because those "proper foods" were being grown on land lacking in the basic elements needed in the human system.

THIS, PLEASE understand, was not Dr. Allison's original theory and the Ozarks experiment is only one of hundreds being tried in the field.

It is a theory that has been advanced by more and more scientists since they first began to learn of the "trace elements" in the soil—iron, cobalt, magnesium, silver, zinc—some 32 of them, altogether, which science has recently learned are often essential to healthy life in animals, including man, and in plants.

Allison did some tinkering around on his own farm, near Golden City. He ex-

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perimented on feeding trace elements to his livestock. Although the results were still inconclusive, they furnished him with some strong leads—strong enough that they interested Dr. William Albrecht, and Prof. Arnold Klemme, nationally-known experts in the college of agriculture at the University of Missouri.

Albrecht, it seemed, had been experimenting along the same lines.

A third man Dr. F. M. Pottenger, Jr., in Monrovia, Cal., had also been experimenting and was obtaining some excellent results in the treatment of tuberculosis in his clinic there through use of trace elements.

Dr. Albrecht had chosen the Ozarks area because it is among the oldest land on the North American continent. That is, it was one of the few places that had not been touched by the great ice sheets of bygone ages, and was one of the first to have been uncovered by the sea in still earlier ages. Because of this, Albrecht reasoned, the Ozarks might possibly be one of the most deficient in trace elements of any land on the continent.

SHORTLY AFTER Albrecht became interested in Allison's work the International Harvester company entered the scene. Its agricultural research department was interested in the same problem—starvation because of a lack of trace elements—and had also picked the Ozarks region for the same reason as had Dr. Albrecht. And through Albrecht, IH picked Dr. Allison.

Now trace elements are not easily found in soils analysis, being present in such minute amounts as to escape detection under ordinary analytical processes. The only accurate and easy analysis is by spectrograph. And spectrographs are expensive. But International Harvester arranged for that:

The facilities of the Armour Research foundation laboratory in Chicago was put at Dr. Allison's disposal for all such work. Allison was to send in samples of soils from all over the Ozarks area for test; he was to send in blood samples and milk samples of the cattle with which he was experimenting. International Harvester was to foot the bill.

To date, spectrographs alone have cost International Harvester close to $15,000, Allison estimated. For that IH has received a full, test-by-test report on all work done.

WHY DOES A major implement-making company spend so much on an experiment of this sort? Easy. Anything conducive to better and more prosperous farming means more business for IH in years to come. Besides any altruistic motivation, there is good business method in the deal for the company.

And what of the results?

To date, Dr. Allison has worked mostly through three Ozarks farms. First picked was the George Nicholson farm, near Bois D'Arc, where constant tests have been run on about 110 head of cattle; next was the Mowery farm, near Niangua ("We chose it because it was the poorest farm we could find when we started," explains Allison, "though it's rapidly being built up by Mowery, a progressive and intelligent farmer.") and third was O. E. Jennings dairy farm, east of Springfield.

The first work under IH cooperation began in 1947. Allison had noted that a bull, if infected with Bang's disease, will soon recover. That, reasoned Allison, was because his energy is not going into the production of milk.

Now, if a cow's diet were complete, enabling strong bodily resistance, why shouldn't she have the near-immunity of a bull? Or, if she contracted the disease, why couldn't that resistance cure it?

EACH HERD HAD Bang's disease. Allison took samples and had them analyzed. In each sick cow there was a deficiency in some of the trace elements. But those same elements were present in the blood of healthy cows.

Milk analysis revealed corresponding deficiencies and so did soils analysis.

Another thing which the experiments revealed was that cows fed salts of the trace elements were immune to the disease even though in constant proximity with the diseased animals.

Allison knew he had something now. He began to experiment with the sick animals, feeding selected animals with trace element salts and keeping a number of "controls" to validify his findings.

The results were highly gratifying. The sick animals began to respond. Within a few months their blood tests showed a completely negative check for Bang's disease. They were cured.

He extended his experiments into the realm of human life. In the meantime, Dr. Pottenger in California, was working along the same line in cooperation with Allison. The results were amazing.

IN A PAPER authored jointly by Pottenger, Allison and Albrecht in the Merck & Co. Report for July, 1949, the findings were presented:

"Such varied symptoms (in human patients) were initially present as to be too baffling for accurate diagnoses. Yet they disappeared after consumption of trace-element salts and carefully regulated, high-protein, low-sugar diets during some 12 weeks or more. Relief occurred from this vast array of symptoms, which included aches of the back, shoulders and joints, allergies, arthritis, anorexia, hyperidroses, fever, constipation, enlarged spleen, mental depression and others amounting to a list reported possibly as large as 200."

The report also told of the cattle experiments of Dr. Allison:

"This same therapy now has been used for almost a year on a herd of dairy cattle with brucella (Bang's infections, abortions, difficulties in breeding and othe perplexing irregularities. During the year preceding the feeding of the trace elements to the cattle there was a total calf crop of 20 viable calves from 56 cows. During the past year of trace-element therapy, each of 52 cows delivered a calf, including two abortions and one injured fatally.

"These calves were larger at birth than those of previous years. Fewer irregularities have been experienced in getting the calves started. The number of services required for a single fecundation, either by artificial or natural insemination, has been significantly less during the past year, whereas previousiy it had mounted to as high as 14. The milk production per cow has increased to push up the average for the herd to a good record."

And those experiments, please remember, were conducted with Ozarks cattle.

GETTING DOWN to specific cases, Allison has worked some "miracles" with the herd of O. E. Jennings. ("Miracles" is Jennings' own description.)

Allison used three "pilot" cows—Snowdrop, Lita and Martin Poppy. Snowdrop was a Jersey champion in Oklahoma and Kansas before Jennings acquired her. She was purchased for a Bang's free cow, but became ill shortly after he acquired her.

To quote Jennings, "She was droopy, had a fever of 104, had a milk yield of only 15 pounds a day, and looked like a suregoner when Doc took over." The spectrograph revealed several trace element deficiencies, notably in cobalt and zinc. As soon as the trace elements were supplied in her diet, Snowdrop began to pick up. Within 90 days she was yielding 45 pounds of milk a day.

Her blood tests on June 8, 1949, showed a hemoglobin content of 50 percent (normally it should have been at least 65); by September 16 the hemoglobin was 90 per cent. Lita's increase in hemoglobin between June 8 and November 7 was from 52 per cent to 96 per cent, and Martin Poppy in that same period gained from 59 to 104. All three had been on the extremely sick list when treatment began.

What of the precious vitamin B-12 which milk is supposed to supply to man? The increases for Snowdrop, Lita and Martin Poppy in the two-week period between June 16 and June 30, 1949, were from .009 to .26, .003 to .22 and .006 to .24, respectively.

That, explains Allison, is from cobalt

fed the animals. And B-12, remember, is the food you are depending on for growth and health when you buy and consume milk.

And, incidentally, pasteurization, almost a vital safeguard against undulant fever when you're buying milk on the open market, cuts the B-12 content in milk by one-third to one-half, Allison's tests reveal. Furthermore, the calcium content is impaired seriously by pasteurization. And condensed milk, Allison says, has no vitamin B-12—it's lost in the processing.

ANOTHER NUTRITION experiment conducted on the Jennings farm was with a bull with rickets. The bull, sire of some of the best Jersey cattle in the Ozarks, was left in pasture in a drought year while Jennings was in Florida. When Jennings returned, he found the animal, then still a calf, with his legs so badly twisted he couldn't walk.

A valuable animal, Jennings immediately called in a veterinarian and started to work. By proper feed and care, the bull was straightened up and able to go in service. But he still had large lumps—calcium lumps, explained Allison—on his sides and ribs and knees. Trace elements in his feed have removed these, although Bruce is still a cripple.

"John Fawcett (manager of the world-famous School of the Ozarks herd) once offered me $2500 for that bull when he was a year old, despite his crippled condition, and I have turned down offers of many thousands for him since." He is the sire of 33 of Jennings finest cattle.

Bruce, Allison points out, is a fine example of what dietary deficiency can do to wreck an animal—also of what proper diet can do to restore health.

GETTING BACK to Bang's disease—Jennings vaccinates his animals no more. Neither does he have Bang's disease. Furthermore, Allison believes nutrition is the answer to mastitis. None of the herds he is experimenting with have it but he is working on another case to prove his point—that complete nutrition will prevent mastitis and that proper nutrition will cure the disease.

Vaccination against Bang's was discontinued on the Nicholson farm when Allison took over. Bang's disease has been whipped. The same thing is true on the Mowery farm.

Allison is contemptuous of most minerals sold for stock. "Sure, they are minerals, all right— but what kind and how much? The regulations governing their manufacture and sale are far too lax. They contain copper, cobalt, maybe, but how much? A farmer ought to learn what he needs and apply it to the soil. Sure, he has to feed minerals till he gets his soil built up."

AND THAT IS what is being done on the three farms. The trace-elements are being applied to the land. Allison is positive that once the land has enough no more mineral feeding will be necessary.

Are they expensive? Well, yes, for the initial cost, but not when you remember they will last for years. Probably ten years at least, he isn't sure.

And help? Oh, yes, fertilizer and mineral companies are coming to his aid. For the experiments they are supplying whatever he asks—at absolutely no cost, not even for freight. Notable among them have been the Coronet Phosphate company of New York the Schrock Brothers Fertilizer service of Bloomington, Ill.; Thurston Chemical Co., Joplin; Manganese Foundation, Cleveland, and Lang Bros. Fertilizer Co., St Louis.

The trace elements most notably lacking in the Ozarks, says Dr. Allison, are cobalt and copper. Probably zinc is next. However manganese is short in many places and some areas are almost devoid of all trace elements.

What does it mean to man? Well, much of that land will grow crops, pasture, hay, garden. You eat the produce or consume the meat and milk. But you don't get something that isn't there. Therefore, you, too, are starving even though your dinner table is always loaded down.

LIME AND COMMERCIAL fertilizer are applied to the land. They only hasten the exhaustion of the trace elements, even while speeding and increasing the growth of crops. Your nutrition problem piles up on you year by year. The most luscious looking vegetables, the highest testing milk won't supply you the vital trace elements if they aren't in the land that produce your food.

Your disease rate increases, as does that of your crops and your livestock. Bugs infest weak plants, not strong ones—plants weakened by malnutrition.

In fact, Dr. Allison is convinced (and so are many other doctors) that the bulk of the nation's heart, respiratory and other ailments are directly traceable to malnutrition—starving with a full dinner table.

It's only a matter of our awakening to the problem, says Allison. "The trace elements are to be found in abundance in America. It is only a question of finding what ones are lacking on specific plots of land and putting them there."

In the meantime, Albrecht, Allison and others are planning a conference in Springfield in the near future. To it will be invited eminent medical men and soils specialists interested in the problem. In fact, Louis Bromfield, noted novelist, conservationst and Dewey's probable choice for secretary of Agriculture had Truman not pulled the surprise of 1948, is one of the expected notables. The trace elements are an old story to Bromfield, as any of his readers can tell you.

You in the Ozarks are in the beginning of a revolution in soil and health. Prick up your ears and see what comes of it.

'Dealer in Ideas' Responsible For Trace-Minerals Meeting

Although Dr. William Albrecht has been the dynamic factor in organizing and bringing a two-day conference of nationally known nutritionists and soils specialists to Springfield he denies that he is seeking a "cure" for Bang's disease—for undulant fever—for anything, as a matter of fact.

"I'm just a dealer in ideas," he says. And he is more interested in getting these ideas into the crucible of experiments by research stations and research men to see whether they can be refined and put to use, or if they must be discarded.

The conference which got underway this morning, is for an interchange of ideas by those men who are conducting the experiments and those who, like Dr. Albrecht, are "dealers in ideas."

Dr. Albrecht has a clear concept of the function of experiment stations, such as he conducts at the University of Missouri where he is head of the soils department: "An experiment station is not entitled to do glorified farming at public expense," he declares emphatically; it is a failure if it does not promulgate and test new ideas.

AND WHERE did Albrecht get his idea that has led to extensive trace minerals studies in the Ozarks? By an interchange of ideas with Dr. Francis Pottenger, Jr., of Monrovia, Cal. Dr. Pottenger had learned that the manure of a cat fed on a strict diet of condensed milk, covered with pure sand, would not grow even weeds. Under identical conditions, if the cat were fed raw milk the growth was lush. Pottenger wondered why. Albrecht decided to help him find the answer.

It was Albrecht's contention that civilizations were always built around the edges of the seas—never far inland. Every form of mineral finds its way to the sea, at the costs of the soils inland.

Better communications, mechanization and knowledge sent man scurrying inland a few centuries ago to settle continents. But nutritional knowledge lagged behind.

As he moved inland nutritional deficiencies began to increase, and so did disease.

"We've been shooting the microbe" ever since. Albrecht said, with every disease except tuberculosis which is now treated and cured through a nutritional approach.

NOW, DOES a microbe bring disease to a healthy body, or does a run-down body just invite the microbe and resultant disease?

"I'm defending the case of the microbe," Albrecht chuckled, "contending that the microbe has just atticipated the job of disposing of the cadaver" if a person's body invites the invasion of the microbe.

He pointed to the geology of Missouri—a meeting place of north and south, east and west in the continental terrain pattern. He was sure there would be soil deficiencies here.

"Here we are trying to raise beef on land where the good Lord failed," says Albrecht. Even buffalo shunned the Ozarks region.

GETTING BACK to cures, Albrecht repeated. "I'm not prescribing— I can't think for agriculture, but I want to think with it."

Dr. Albrecht compared the human body to an "assembly line." It employs compounds, but it doesn't sythesize, or build those compounds. That is the function of microbes and plants. The human body can't "put sparkplugs" into its mechanism, if his supplier (the food he eats) doesn't produce sparkplugs. And the plant can't build sparkplugs if its supplier the soil, doesn't have the materials for their construction.

Therefore, "Whatever you are must come from the soil of Missouri or from some other soil."

Regarding the dairy experiments conducted on Ozarks farms with trace minerals—those minerals of which the human body requires such infinitesimal amounts, but which are highly essential to healthy bodies—Albrecht is seeking at this conference to bring together "physicians, who deal with people, and dairymen, who deal with cows" which in turn furnish food to people.

OF HIS CRITICS—and a man who is the focal point of a new theory of this sort, is bound to have sharp critics—Dr. Albrecht says:

"Disbelief is not always negation. Or, let's put it this way: "If you tell me you don't believe something that might be only a confession that you don't know enough about it to believe. Therefore, what you mean in such case is 'I don't believe it—yet'."

Human nutrition, concluded the soils scientist, is a "real responsibility, three times a day. We want to know what we are trying to do when we eat."

Hence, a conference that is bringing together some of the leading medical men and soils men from all over the United States.

Malnutrition Cited As the Chief Cause Of Juvenile Crime

Even your telephone tells the story of man's malnutrition, Dr. Francis Pottenger, Jr., specialist in child diseases from Monrovia, Cal., told a public forum at Farmers auditorium in the county court house last night.

"The new telephone has been designed three-fourths of an inch shorter because of the shortening of man's jaw and lower face in the last generation." That, contended Doctor Pottenger, is the result of malnutrition that has become almost universal with the American people.

Doctor Pottenger was one of the speakers at the forum which marked the end of the first day of a two-day conference of nutritionists and soils specialist from over the nation in Springfield.

But that is not the worst of the picture Doctor Pottenger drew. The terrible effect he said, is on the younger generation—today's youth. Eighty-five to 90 percent of today's crop of children need their teeth straightened because they don't get the proper food.

And, according to recent medical studies, the shortening of the jaw in human growth also brings a corresponding shortening of the lower part of the brain. The result, Doctor Pottenger said, is that a youth does not mature properly—never becomes quite sexually mature.

Delinquency Cause

"If I were to name the chief cause of juvenile delinquency and of the growing crime rate," Doctor Pottenger said, "I would say it was malnutrition."

Another result of this change in body structure is a lengthening of the limbs, the fingers and an increase in the size of feet in today's generation.

Oddly enough in an off the record remark earlier in the evening Dr. Lawrence Smith of Des Moines, another who helped to conduct the nutritional clinic here yesterday, had made almost the identical statement.

Taking a leading part in the explanation of the need for trace elements in the soil and in the body's nourishment was J. W. Wischhusen, Cleveland, of the manganese division of the Eastman Kodak Co.

Wischhusen, a pioneer in trace elements study 12 years ago, explained somewhat the chemistry of trace elements in the soil. Admittedly, the field is almost virgin to research, he said; man is just beginning to learn about it.

Work in Groups

Trace elements work in groups Wischhusen explained, and there are "multiple result from mul-tiple use" of them. Much of his explanation was highly technical for the layman, and was aimed at doctors in the audience and at the panel table.

However, the speaker explained, in feeding trace elements to the soil, through chemical reaction "you feed the micraflora in the soil, the micraflora feeds the plant growth hormones," and these hormones are essential to animal and human life. However, the elements can be fed orally to animals, but "as a medicine, not a food."

"It's a chain of enzyme reaction—if balanced there is no trouble; if unbalanced, lots of trouble."

Dr. H. Trautmann, Madison, Wis., nutritionist, summed up the results of the clinic here yesterday. After examining a number of patients who had been treated with trace mineral Trautmann concluded there is no single deficiency, also no single result of deficiency.

"But health in America is being wasted just as much as the soils and forest are being wasted, because human health is tied in with the health of the soil."

'By Back Door'

Trautmann believes that most medical men are going into the house of health by the back door. They are emphasizing curative medicine instead of medical preavoid disease. He said that some medical schools are just beginning to awaken to the problem and attack it from the other angle.

Other speakers on the panel last night included Dr. C. C. Landis of Chico, Cal., Dr. L. W. Kuttler of Cleveland, Ohio; Dr. W. H. Cooper of Oklahoma City, and Dr. Ira Allison, Springfield.

Dr. Lawrence Smith and Dr. William Albrecht, University of Missouri, served as joint moderators.

Numerous questions were brought up by the audience in a question-answer session as the evening closed.

Soils Discussion

Earlier in the day, in addition to the all-day clinic held at the Chamber of Commerce building, a soils and fertilizer discussion was held in the auditorium at the court house, with Dr. G. E. Smith of the University of Missouri in charge.

Smith discussed the growing use of fertilizers in recent years and correlated that growth with the increasing demands for larger crops from the soil. He dealt chiefly with the major elements, however.