



Your Living Environment

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FABRICATING FOOD -- FROM FERTILIZERS!

For the year 1969/70, total world consumption of chemical fertilizers reached 63 million metric tons. This figure represents a 200% increase over the average consumption for the years 1952/56, which stood at 20.2 million tons.

During the same period the world's total agricultural production appears to have increased by only about 45%. Not a very startling increase compared with the extra fertilizer used! However, it is very obvious that world agriculture is now fully committed to its present method of feeding mankind (i.e. production of plant matter for man and animals by the use of artificial fertilizers).

In this issue of Your Living Environment we are going to make an up-to-date survey of this present internationally-accepted method of food production. And in the next issue we hope to contrast it with a diametrically opposite system!

How Gullible Is Man?

It is well known that nitrogenous types of chemical fertilizer are the most important part of this gigantic secondary industry. Why? Because nitrogen, in a form available to plants, is regarded as the basic building block of protein. It has also been said NITROGEN is the greatest single limiting factor to increasing world food production. Taking these factors into consideration, we may rightly conclude that nitrogen must be one of the most vital nutrients for man. At the same time it is difficult to avoid the assumption that it must also be hard to come by! But read what the U.S. Department of Agriculture has to say:

"The primary source of soil nitrogen is in the air. Harry A. Curtis, of the Tennessee Valley Authority, calculated that there are about 34,500 tons of nitrogen over every acre of land area. That is about four-fifths of the atmosphere. This inexhaustible supply remains constant, because nitrogen is being returned to the atmosphere at about the same rate as

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it is being removed." (U.S.D.A. Yearbook, 1957, p.86.)

Is it therefore somewhat surprising to find the world's food producers annually paying out hundreds of millions in hard-earned cash for a commodity that is available to every one of them virtually FREE?

It is not only surprising, it is almost unbelievable!!! Surely this situation sounds more unlikely than the story of the gullible country-yokel being sold the tallest building, or the largest bridge, on his first visit to the big city!

Nevertheless, modern science and 20th century industry have cleverly co-operated in selling millions of tons of combined nitrogen to the world's farmers. Furthermore, the farmers are convinced that they are getting value for money. And at the same time Science, Industry, Agriculture, Governments and Consumers are all convinced that man has no alternative (except starvation)!

'West' Exports Its System

Regarding Agriculture, Economics and Nutrition, the world is divided into two sections -- the over-developed and (as some say) the never-to-be-developed! Foodwise, one section is plagued by surplus and the other by chronic shortage. Though it is little understood, both have one thing in common -- they now suffer from acute nutritional deficiencies!

In some ways it would seem that the under-developed are almost better off. Why? Because they at least know that they are in real trouble! The Western world not only refuses to face the fact that it is in grave nutritional danger, but it is now internationally palming off its system of food production onto its 'backward country cousins'.

Even FAO's Director General has sounded a word of warning:

"Many people speak of the green revolution as if it were already an accomplished fact. But some caution is called for if we are not to be carried away by mere slogans and catch-words... for, taken literally, the phrase would seem to imply a general, radical and permanent improvement in the agricultural situation in the developing countries."

(Forward by FAO Director, State of Food & Agriculture 1971.)

The term "green revolution" has become just what the Director General said -- a slogan and a catchphrase. Meaning that millions in both the over and under-developed worlds are taking it literally. Who is not believing in that "radical and permanent improvement" in the backward section of world agriculture? Is it not time the magic and mysticism was stripped out of this catchery -- GREEN REVOLUTION? We need to understand it for what it is! It is the science of Western Agriculture passing itself off as the saviour of a starving world!

While one branch of that science has attacked man's food supply problem by synthesising plant nutrients, another is now manipulating genetic material to its own short-term advantage. As one source commented:

"Dr. Norman Ernest Borlaugh, the agriculturalist who won the Nobel Peace Prize for helping to foster the so-called 'green revolution' of hybrid crops, may instead have opened a Pandora's box of pestilence, famine and social disruption."

"Many agricultural experts now believe that the green revolution is in fact a myth and that continued extensive use of hybrid seeds will have devastating social and scientific repercussions." (Marcia Hayes, PARAGOULD DAILY, Paragould, Arkansas, 11-12-70.)

As an inspired international project, vital to the survival of mankind, the "Green Revolution" is being masterfully piloted through its early stages. Millions believe in its success, but do we have to sit and wait goggle-eyed through all the entrancing propoganda to see if it will really succeed?

No! An examination of WESTERN agriculture will reveal the nutritional future of those backward countries now depending on the "Green Revolution". Why? Because that "Revolution" is the product of Western agriculture!

But Will It Succeed?

Food production in Asia, Latin America and even Africa is now more dependent than ever on chemical fertilizers -- the soil fertility drugs of Western agriculture! Of these, synthetically-combined nitrogen is by far the most significant. Today, individual factories are turning out as much as 1,000,000 tons of this fertilizer in a single year!

But why should human survival appear to depend on international fertilizer factories churning out 60,000,000 tons of these materials annually? Did our Creator God slip up somewhere and overlook man's need for food? You will see later that He didn't, but meanwhile let us look at some more facts surrounding this multi-million pound business. As local figures are more readily available, we will examine U.K. agriculture.

An Unfair Comparison

No one can challenge the high level of productivity that has resulted from the increasing and widespread use of chemical fertilizers and no one does! But we should take a little space to question just what this farming system is being compared with.

The "success" of agro-chemical food production, in terms of output and quality is totally questionable. Success has been measured

by yield increases obtained on land whose fertility has been largely stripped out of it by other wrong farming methods!

In other words chemical farming was not introduced because of its success, but rather because of the failure of man's traditional methods. Most men have yet to come to understand that both the old and the new systems are WRONG.

Modern farming methods still produce sick soil, diseased plants and food for men and animals that is nutritional junk, just as the old system did. There are differences however -- NOW we are able to produce more of it, per acre! And we can now also reduce fertile virgin soil to a near sterile and hydroponic state in record time!

Bold statements, but what evidence do we have that our present agriculture is producing "nutritional junk"?

Costly Veterinary Services

In 1969/70 British agriculture spent £127 million on chemical fertilizers! And at the same time local farmers now pay out £20 million every year for veterinary drugs to treat their sick animals. They do so accepting that sickness is virtually inevitable, but this is a false assumption. £20 million allows nothing for the professional services of the veterinarians. These would probably be at least another £5 million or maybe £10 million.

Many fail to make the connection between artificial fertilizers, food quality and disease incidence. Others don't wish to! We hope that you can -- and do!

Take for example the economic survey done by British television on the lack of profitability in local agriculture. A hard-working young couple on a small dairy farm in the West of England were shown to have a nett income of £2 per week, after all their efforts and long hours throughout the year. At the same time the interviewer and the farmer passed glibly over the appalling fact that the farmer paid out £12 per week for veterinary products and services during the entire year! And that allows nothing for deaths and lost productivity!

The charges were no doubt regarded as legitimate from both the veterinarian's and the farmer's points of view. At the same time we might reflect on the fact that that farm was perhaps just one of 20 or maybe 50, attended by the veterinarian! One day man will offset these costs against our much vaunted progress.

Losses Through Disease

It has been estimated that Britain's recent Fowl Pest epidemic, affecting 45 million of our 110 million birds has cost the nation at least £15 million. Similar figures could be, and some have in the past been quoted for other continuing disasters such as Mastitis, Contagious Abortion, Mildew, Weed-control etc. Now the Ministry of

Agriculture estimates, for example, that the annual cost of pesticides and herbicides to the British farmer is £17 million.

We should never believe however, that the costly penalties for our high-production system of farming are limited to soil-breakdown, diseased plants, pest attacks and unhealthy animals. Do we not EAT our plant and animal production? Then as they are affected to the tune of these multiple millions, would we not be affected also?

Man Can't Escape!

In 1959 the British Government spent £828 million on the National Health Service! If we are what we eat and if our method of food production is the kind we need to build strong healthy bodies, that figure ought to be dropping rapidly under a progressive system of agriculture. Despite inflation, our standards of living are said to be rising. But what is happening to the barometer of Britain's national health? By 1969 (just 10 years later) the annual health bill had NOT fallen. It had then reached £1880 million!!

In the same period the cost of pharmaceutical services, (presumably human) rose from £88 million to £198 million. (Source: Annual Abstract of Statistics; quoted from Annual Report of 1970-71 of The Association of the British Pharmaceutical Industry.)

Is this the picture of a nation whose agriculture is truly progressive? And one that is producing an abundance of nourishing and fine health-giving food? At the same time we must not assume that all sickness results from eating low quality food. Accidents, old age and emotional stress are very important factors and must be allowed for. But the cost to the nation, through sickness, does not end with payment of a bill for the National Health Service.

A Nation On Sick-leave!

What about working days lost through sickness? The earliest figure we have is for 1962/63 and it stands at 288 million! Our population has increased some since then but that astronomical total of lost working DAYS (not hours) should be falling, in a nation whose health is improving. What are the facts? The position is deteriorating. In 1969/70 our advanced society in these islands lost 342 million working days! With a work force of some 15,000,000 it means that each of those workers was off sick for an average of 22 days in that 1 year.

Utopia or Bust!

Similar sets of facts could be related for each Western country, as we all plunge headlong down this blind alley of nutritional chaos towards that magical figure of 2,000 AD. It attracts us like blinded moths on a suicidal dash toward a white-hot light. Man charges ahead in the misguided hope that science, technology and industry are leading us to nutritional salvation in an agricultural utopia.

And now the rest of the world is following:

"In the case of Mexico... in 1949/50 total consumption of fertilizer nutrients was about 8,000 tons... by 1959/60... consumption had grown nearly twentyfold... 170,000 tons... and in 1966/67 it was about 440,000 tons.

"In India... fertilizer consumption increased rapidly, from about 60,000 tons... in the early 1950's to over 3,000,000 tons by 1959/60... consumption nearly doubled in the next four years and doubled again in the next three to reach 1,200,000 tons... by 1966/67 (The State of Food & Agriculture, 1968, p.89. FAO publication).

But What Is The True Cost?

Astronomical investment and production costs are involved in ringing the world with fantastic fertilizer factories and laboratories. And who could compute the resources employed in transportation. Much of the raw material is first dragged hundreds of miles across the ocean for processing. The end products have to be loaded back into ships or lorries or both and transported to the world's farms. Then there is that luxuriously expensive section of industry that exists for the purpose of applying finished fertilizer pellets, powders, liquids and gases. It includes tankers, tractors, aircraft, helicopters and hovercraft.

And finally the most costly step of all -- consumption of the resulting deficient plant foods by animals and man. Of these four costly steps -- PRODUCTION, TRANSPORTATION, APPLICATION AND CONSUMPTION, the latter is where the real pay-off is. And that is precisely why our examination of the whole system has been concentrated on this final and fatal step.

It would be foolish, as we have said, to try to load all the blame for soil, plant, animal, bird and human disease onto the agro-chemical industry. But we feel that the statistics quoted show that there is an enormous cost factor cancelling out a large proportion of man's "progress" in food production.

How large? Opinions will differ on this, but we are convinced that the price is far above anything man can afford! Therefore there has to be an alternative -- and there is an alternative!

Chemical farming and its appendages will wither and die. And in its place must come a system that meets the requirements of -- SIMPLICITY, ECONOMY, QUANTITY AND QUALITY! That is what we will describe next time.