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EVOLUTION AND AGRICULTURAL RESEARCH

Scientific agricultural research as we know it today had its origin in the first half of the 19th century. That which began slowly and was received with reluctance and suspicion is now an internationally-acclaimed, multi-million pound operation. Every year it involves enormous expenditure of labour, brains and equipment in most countries around the world.

Britain's Agricultural Research Council alone spends £18,000,000 per year (ARC Annual Report, 1970/71, p. 46). This figure takes no account of the huge sum spent by machinery and fertilizer manufacturers or The Ministry of Agriculture!

As a food consumer and one who is watching world events, it is important for you to realize that this stupendous effort is grossly misdirected! How did such brilliant men get so far off-course? Is anyone ON-course and is there any alternative programme for the future? If so, what is being done? These are some of the points we will cover in this issue of Your Living Environment.

More food for an increasing population is man's professed goal in agricultural research.

EVERY possible means of making plants and animals grow faster, bigger and more economically is being examined and exploited!

Most recently publicised success in this world-wide effort to squeeze more food from every square foot of land is the 'Green Revolution'. However it has many problems! Some were described in past issues of Your Living Environment and in the June Plain Truth magazine. In spite of all the "problems", there is no denying the fact that 'Research' has produced impressive results. Not only has knowledge increased, but so has food production!

WHERE AGRICULTURAL RESEARCH WENT WRONG

For all their apparent success, agricultural scientists have committed many blunders. Their major error, however, lies in their basic philosophy—THE THEORY OF EVOLUTION!

And they follow it unquestioningly!

Consider for a moment how this one theory has blinded these brilliant men. To evolutionists, research is based on the belief that every living thing around them developed by blind chance! If 'chance' has produced a world as good as this, the evolutionist reasons, with apparent logic — WHAT CAN'T WE ACHIEVE WITH A LITTLE PLANNING!!

Working from this false premise, 'obviously' the first thing to do is take the food production system apart, examine its components, carry out a little experimentation and re-assemble it in a more productive, 'efficient' and 'organised' form. One can recognize the cunning of Satan in this diabolical deception. Evolution is the tool he has cleverly used to channel environmental sciences down the wrong road. Each 'solution' produces MORE 'problems' and yet man won't be convinced he isn't making PROGRESS!

THE PATH OF DECEPTION

Consider how devastatingly effective this deception has been! In the 19th century, early scientists discovered that nitrogen, phosphorus and potassium provide plants with most of their food. It was also discovered that their availability to plants is strictly limited. So it was reasoned, (again with apparent logic) why not try adding MORE of these chemicals to crops, in a form that IS readily 'available'?

AMBASSADOR COLLEGE, AGRICULTURE DEPARTMENT, RESEARCH NEWS

Experiments were designed to test their reasoning and — yes — the result was higher yields! But today, over 100 years later, man is still finding out the true cost of those "higher yields".

It is only now that a few people are beginning to look seriously at the alarming trends in food quality and soil fertility! More often, however, we hear the mistakes of agricultural science justified by the claim that 'man can't turn back now, for fear of world famine'!

EFFICIENCY OR PERVERSION?

Whether research results are beneficial, or only appear so, Science always claims it has again improved the 'efficiency' of man's primitive environment.

Take for example the very artificial practice of Artificial Insemination! It was discovered that a bull 'wastes' millions of valuable sperm cells every time he mates with a cow. So scientists have reasoned — why not collect the sperm before the bull reaches the cow, dilute it and use it to breed thousands of calves, instead of just ONE!

It never crosses the scientist's mind that he is tinkering with the natural reproduction system designed and created by Almighty God. As a believer in evolution it never occurs to him that any man-devised alternative could in God's eyes be an insulting and arrogant perversion!

Researchers have now 'discovered' that ruminants have a very 'inefficient' digestive system as their dung contains considerable food value. So, Science is guiding farmers to dry cattle and poultry dung, disguise it and feed it back to their livestock. This is your NEW source of hamburgers and steaks! Do you find this offensive and revolting? Is it then possible that God feels the same way, only more so?

These are just three of many examples, but in all cases the research has been based on logical reasoning — 'logical' if you deny Creation and 'logical' if you swallow Satan's line of evolution, as taught in modern education!!

RESEARCH WITH A DIFFERENCE

Agricultural and environmental researchers at Ambassador College have therefore many advantages. First, we know that an *ALL-wise*, *ALL-intelligent* God *created* the earth, its plants, its animals and man. We know that His Creation was preceded by infinite detailed *planning* and we know that the result was 'good' (Gen. 1:31).

We know that it is man's job to "dress and keep" his God-given environment (Gen. 2:15). We

know that MAN, not MONEY, is the end product of all agriculture and that there are more important purposes to agriculture than FOOD PRODUCTION (see Vol. II No. 11). We know also that man is not meant to dismantle his environment like some frustrated and precocious child tearing the back off a brand-new clock. Every facet of our environmental management must conform to God's laws and standards. Every agricultural practice must preserve our environment.

The *Bible*, the *Land-sabbath* and *Creation* are guides to teach us how best to develop this earth with the least problems. With this knowledge of Ambassador College's approach to agricultural research, let us now see something of the work done at Bricket Wood.

RESEARCH AT AMBASSADOR COLLEGE

There are three basic parts to the Bricket Wood Agricultural Research Programme:

- 1. Analysis of particular problems in the light of God's Word.
- 2. Collection of additional information on each specific question.
- 3. Demonstration of solutions, under field-scale conditions.

ANALYSIS OF THE PROBLEM

We believe that the vast majority of the problems of modern agriculture can be readily solved by obeying the known laws given in God's Word.

For example, British farmers who grow cereal grains continuously on their land are experiencing ever-increasing problems with noxious weeds (such as couch and wild oats) and disease (rust, mildew, eyespot, etc). Scientists are devoting enormous quantities of time and effort to searching for ways of solving these problems.

But any farmer who keeps the Land-sabbath correctly will immediately discover the solution — the Land-sabbath prohibits the growing of continuous cereals and discourages large-scale cereal production — the inherent causes of cereal weed and disease problems. Simple obedience to God's laws would eliminate the very root cause of the problem!

COLLECTION OF INFORMATION

There are, however, still many questions to which we do not yet have absolute workable answers — simply because God's agricultural and environmental laws are not yet known and understood in enough detail.

After searching the Bible for any hints, we then make a thorough study of the most pertinent literature. We have neither the time, money, nor facilities to do expensive experimentations; but in so many cases we discover that other farmers and scientists have already done the work for us. Therefore a considerable part of our research is devoted to academic perusal of others' experiences, ideas and experiments. Using God's principles of environmental management as a yardstick we are able to separate the wheat from the chaff with considerable success.

Periodic visits to the innumerable Agricultural Research Institutes and Universities throughout the British Isles, Europe, Australia, and the United States have also proven to be immensely valuable. They are most effective in broadening understanding of specific problems and their possible solutions.

The third major source of information is the observation of God's Creation in action. Quite by accident vital clues to problems often uncover themselves in this manner. A short example will illustrate this:

In March we rotovated a grassed-over section of our ground — that had in the previous season grown a few rows of potatoes. By accident, some had not been harvested the previous autumn, so the rotovator blades soon brought them to the surface. Both the feel and taste of these potatoes were superior to those 'lifted' in the autumn and stored in a *clamp*. In fact they approached the quality of many 'new' potatoes.

Is it possible that potatoes can be 'stored' in this manner, even in severe winters, with the grass cover insulating them from frost damage? Could this provide top-quality potatoes year-round — especially during the Land-sabbath?

FIELD DEMONSTRATION

Once enough information on any specific problem has been studied and carefully analysed, several possible solutions usually appear that would fit within God's created pattern of land management. But solutions on paper are worthless unless they have first been tested in field-scale conditions.

Obviously, at Bricket Wood, we can test only those practices and principles that Britain's climate will allow. In the past we experimented with ideas easily included within the College farm and vegetable garden. We experimented for instance with straw-mulching of vegetables and soft fruit, simply by mulching the College garden and observing the result. We tested the idea of

milking-cows raising their own calves for beef, on the College dairy herd.

The need for greater scope and flexibility in demonstrating ideas has caused the Agriculture Department in Bricket Wood to enter a new and expanded phase of research. An area of land has now been set aside solely for field trials, with specific individuals in charge of layout and daily operations. Though the new programme is only a few months old and still finding its feet, we thought readers might be interested in an outline of the agricultural methods and principles under investigation.

WINTER FODDER PRODUCTION

Imagine the problem that a stockman faces when he observes the Land-sabbath. Every seventh year it appears, no hay, silage, straw or grain may be taken from the land, even to store in the barn. How then is he to feed his cattle, sheep and poultry during the winter when grass growth is inadequate? (This problem will become even more acute when all farmers keep the Land-sabbath in the same year!)

We have, therefore, initiated tests of various winter-feed alternatives to hay and silage — with emphasis on crops that can be consumed in the field. A selection of grasses reputed to grow well in late autumn and winter have been sown for observation. Since many British farmers use roots and brassicas for winter feed, we have sown plots of mangels, swedes, field-cabbage, kale, rape, fodder-radish and hardy winter-green turnips. These will be compared for suitability to this area, winter-hardiness, yield, resistance to weed competition, ease of establishment and livestock preference. We also hope to test the possibilities of direct-drilling these seeds into both old pasture and lucerne.

SOIL-FERTILITY TRIALS

Books on 'organic' farming and gardening disagree over the merits of compost, mulch, fresh dung, rotted dung and processed sewage, so we have established a long-term demonstration to compare their value as organic fertilizers. Vegetables will be regularly planted into these various plots as a means of measuring changes inherent in soil fertility and productivity resulting from the fertilizer treatments.

HOME-GROWN SEEDS

Are such companies as Suttons, Carter's, Elsom's etc. (large vegetable-seed suppliers for the U.K. market) essential to vegetable produc-

tion? How feasible is it for everyone to save their own seeds? What problems would result from this practice? To find the answers we have begun our own small-scale tests of this idea.

ANIMAL NUTRITION

Is it true that an animal can select its own diet, if given the opportunity, and do a better job than an educated chemist sitting in a laboratory, formulating animal-feed rations? Some authorities say yes and some say no! Who is right? Though no trials are yet under way, we do anticipate having a closer look at this question in the near future.

SOWING CEREAL GRAIN

Is it feasible to sow grain almost on the surface of the ground? After all, grain would naturally sow itself in the soil surface — not 3 inches deep! Is it also feasible to depart from accepted British practice and sow grain in July and August — at the time it would normally sow itself? (Of course it would be necessary to graze the excess growth to prevent excessive damage by winter frosts.)

Is it feasible to drill oats, wheat or barley directly into established lucerne or clover — and by careful management, provide late-autumn and early-spring feed when most farmers are relying on hay? We have heard that C.S.I.R.O. has done this in Australia. Perhaps it is possible in England? We hope to run field trials to test each of the above questions. In due time we will publish a report of the results, whether negative or positive.

VEGETABLES IN THE LAND-SABBATH

Is it possible to have fresh potatoes, carrots, parsnips, radish, kale, spinach, etc. during the Sabbatical year? If so, how and to what extent? To answer these questions we planted a small trial area with vegetables this spring with the intention of inducing maximum volunteer growth next year.

SOIL FERTILITY AND SEED QUALITY?

Will a very *fertile* soil produce better seeds than *infertile* soil? If so does the effect last over several generations? Since this really boils down to *heredity* versus *environment*, the answer to these questions has far-reaching implications! We have established a very *poor* soil plot adjacent to a very *fertile* plot, and by using *wheat* as the yardstick, hope to achieve a reliable answer to the questions posed.

PHOSPHATE DEFICIENCY STUDIES

One of the major problems of the world's agricultural soils is an apparent shortage of phosphate — thus restricting legume and grass growth by checking potential productivity. Agriculturalists in the present technological era solve the problem by digging up rock rich in phosphate, grinding it to dust and spreading it on the deficient soils (usually hundreds of miles from the source). Slag Waste from steel mills is also rich in phosphate and has been widely used as a fertilizer too.

These may be acceptable materials, but did God design man's production system around the massive movement of special pulverized rocks to all parts of the earth? If that isn't the right system, what is? We don't yet know the full answer, but we are examining possible alternatives to solve man's worldwide shortage of available phosphate, potassium, calcium etc. in so many agricultural soils.

THE IMPORTANCE OF DUNG-PATS

Why did God make dung-pats repulsive to animals? We indicated the answer to this question in Vol. I No. 11, and suggested that dung-pats may be vital in breeding better grass naturally. Field investigations into the effect of dung and ruminant digestion on grass and legume seeds have begun. As with all breeding experiments, this one will require some time to produce conclusive results.

OTHER PURPOSES OF AGRICULTURE

Today agriculture is simply a means of PROFIT via FOOD PRODUCTION and the role of *Research* has been to achieve more *outputs* with fewer *inputs!* Sounds suspiciously like the 'GET' system doesn't it? And that is NOT God's way!

Like every other department in Ambassador College it is our job to *Recapture True Values*. That is why we are not just *another* Research or Organic Farming Institution. We know that many of the needs of God's system of agriculture cannot be determined by laying down replicated trial plots and complex breeding programmes.

God's Word shows that the Creator has much more in mind when He made man's environment than providing FOOD and MATERIAL POSSES-SIONS! A correctly oriented system MUST provide man with a family environment!

These are factors that make our research so very DIFFERENT! We are looking for a different result — and so are you'.