

HEALTH AND NUTRITION ISSUES IN PHILIPPINE AGRICULTURE 2020

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Academician R Abarquez, Jr.: The issue between agriculture and nutrition is a long way. A proposal to adjust the production, the source of food to the end user has a lot of pathways. One pathway which can determine nutrition is the social aspect of food patterns. So, I would like to get a reaction from our social scientist whether there is a likelihood of modifying food patterns. For example, there are regions that would prefer food that are rich in salt. There are regions that would prefer food that are rich in certain nutrients or lack of nutrients and, thus, from the production to the end users is a long way.

Another issue is in the advertisement of products. Usage of food, whether plentiful or inadequate, is driven by what advertisement can do to sell that product. So, this is an aspect that may account for the obesity problem in certain parts of our country.

And the last comment I have is on the issue of coconut oil. I hope that Academician Juliano can say something about this. Thank you.

Dr. RF Florentino: Well, I agree that we should look at the coconut as a source not only of nutrition but also cause of economic source. And therefore, in terms of nutrition, I think we could very well see the value of coconut oil. As a matter of fact, the reason why one of the many reasons why our caloric intake on the average of per capita basis is low is because of our low fat intake, mainly from plant oil and with low animal food consumption. But then, we have to look at the current supply. Because most, I think, of the fats and oils available goes out of the Philippines by export and in fact, the amount of fats and oils that is in our current food supply for domestic consumption is not enough to satisfy the caloric requirement and the proportion of fat in our diet is low. This should be in the order of 25–30%. Right now, we are only taking about 18% of our calories from fat.

Acad. EQ Javier: One of the more exciting clusters in the course of preparation of PA 2020 is the cluster on herbal medicine and health supplements. Our producers who are now engaged in exports are very

excited over the income and value adding potentials of herbal and health supplements. And, in fact, among the sectors, they were the most bullish in terms of their growth rate. But, I think there is a problem on the medical profession side. They are complaining that our national medical science system is reluctant to recognize the real health value of herbal medicine and other health supplements. And therefore, they have difficulty getting clearance or recognition for them to be able to expand their exports. So, we want to hear from our colleagues in the health field whether in fact this is an area that has scientific basis for promoting good health and how do we go about helping our producers, farmers and our exporters gain valuable foreign exchange for our country?

Unidentified: The primary problem is that drugs before they can be licensed for commercialization will undergo a long and very expensive process of isolation, purification, bioactivity testing and three phases of clinical trials. The most difficult is Phase 3 study on humans which require very specific criteria. On top of that, there is a postmarketing surveillance which is the responsibility of the company. As long as the drug is on the market, continued monitoring of its side effect is performed. And the moment that there are enough evidence to show that it is harmful it is withdrawn in the market.

Our herbals have not complied with these basic requirements, so they are sold not as prescription drug but as food supplement. When marketed as food supplement, then the control in terms of quality, toxicity, etc. may be lax. I agree with Dr. Domingo that there are really problems with herbal medicines and supplements but I think the way to go is to try and really provide scientific basis for their claims. Like for instance, ampalaya which has many therapeutic activities. At least on our part, we have been looking on the immunomodulatory activity of ampalaya and we have, to a certain extent, purified some parts of the ampalaya extracts which have this immunomodulatory effect. Now, if the antidiabetic principle of ampalaya could be identified, then it will be way toward having the scientific basis that we need for the medical community to accept such a product as a drug. But the therapeutic claims need to be supported by scientific evidences and this will be difficult.

At this point, I think most of what we have are in crude forms and this is because we want to sell them at probably the cheapest possible price. If we pursue further purification steps and identifying the single molecule that has the highest biologic activity then it will be tantamount to actually producing a drug. It will require a lot of resources which probably, we do not have.

Mrs. Zenaida Salazar: Adventist University of the Philippines, Silang, Cavite: I would like to ask what Dr. Barzaga can say. While it is true that in the Philippines, we are now reaping benefits from genetically modified food, and it seems that a lot of us agree with or buy the idea of eating genetically modified food. However, why is it that in other countries, they are negative about the use of genetically modified food?

Dr. NG Barzaga: Thank you for that comment and question. Actually, the issue on genetically modified food has been with us for the last six years. The problem is really not science-based but is more political and I believe social and economic.

The U.S. which produces I think more than 80% of the genetically modified crops, of course, fully supports it. Europe does not but it has a lot of on-going researches that make use of transgenic plants and crops. The difference in the two is really on the problem of trade rather than scientific basis. For the last five years now, we have been doing advocacy work explaining the safe and responsible use of biotechnology and the risk associated with the use of such technology especially in relation to food. For example, two of the commercial crops genetically modified crops that we have here, Bt Corn and round up ready soybeans, have been assessed for safety already. And I would like to say at this point that over the last five years that we have been doing this education campaign, I have seen a better understanding of the public regarding such issues. It is important to fully explain what the benefits are versus the risk. There is no 100% safe food. I will have to say that. Even the food that we eat today may have some toxins. There is always risk in whatever we do. But the safety of food products of modern biotechnology is strictly assessed. If there are risks and if they are manageable, they are managed. If they are not manageable, they are not used or they are banned from being registered. So, it is a matter of education. We have had talks with farmers, professors, high school and elementary students, stakeholders, food chambers, food producers, and others.

Academician RL Villareal: Thank you very much. Mr. Chairman. Well, I think we should not forget that, indeed, vegetables contribute a lot of minerals and vitamins and the other aspects of functional food. But I think that if eating of vegetables will start from the family, maybe we can improve on the intake of vegetables. We have one of the lowest consumption of vegetables in the world today. And if we do not do anything about it, I think our population will suffer from malnutrition. To make the story short, Dr.

Florentino, of the Nutrition Foundation of the Philippines, what are the steps which your group has been doing to encourage the consumption of vegetables?

Academician EO Domingo: I would like to add a little question to what Academician Villareal has asked. Will the ideal or desirable food mix of Filipinos impact on the emphasis of PA 2020?

Dr. R Florentino: This exactly, what I was batting for. Instead of just looking at the current dietary pattern and say okay let us satisfy this with enough food supply and let us project this because of the increase in population, we should look at the nutritional quality of that pattern and try to improve in terms of supply and improved dietary supply pattern. I was hoping that in conjunction with the nutrition education effort of the nutritionist, for example, we would accompany this with an improvement in our food supply pattern. In the same token, we need to look at the desirable dietary pattern in our food supply. Then we can try to shift gradually the food supply pattern to something more desirable for the Filipinos.

In terms of vegetable and functional foods, this is one of the issues because we have deduced their functional values from draft scientific studies. There are also a lot of observational and epidemiological studies that have shown the value of functional foods. However, we need to determine the minimum requirements of these vegetables and other functional foods that will provide the phytochemicals and their health benefits.