1-TITLE:
MODERN AGRICULTURE

2-INTRODUCTION:
In association with the aims of our project this topic (Modern Animal Breeding), which is determined according to the results of need analysis carried out among our target group, will be used at the education of our target group; technical staff and farmers. It is known that our target group is loaded with information at a specific rate. With this brief education programme, the information will be tried to be partly updated.

3-AIM:
- To try to get our target group create new perspectives on animal feeding,
- To help the target group reach information resources related to animal feeding,
- To ensure the target group gain knowledge about the organization and marketing which are the important part of Modern Animal Breeding.

4-EXPECTED RESULTS:
It is expected that the farmers will get healthy products as they make more modern production and as a result of this they will understand that they can increase their profits, also the technical staff will help those in need of assistance better by updating their information.

5-TRAINING HOURS:
3 Hours

6-CONTENTS:
Many countries which have reached their limit in terms of suitable agricultural areas are looking for ways to obtain more products on a unit area in order to meet the accommodation and catering needs of their increasing population.

6.1 SUBSISTENCE AND MODERN (INTENSIVE) FARMING
Subsistence farming and Intensive farming are two ways of cultivation and differ in their objectives. Farming dates back in 8000 BC, it used to be one of the primary way of life in every country. It is the main source for provision. However, as centuries unfold, various types of farming have been made by man. Some of these are Subsistence farming and Intensive farming.
Subsistence Farming

Subsistence farming is used as a primary way for a family or a community to have food served on their table, the whole year round. It is when they just plant and cultivate crops for their own consumption based on their own calculation of the needed produce for the whole month or year. Farmers make sure that they have enough to last their family and no profit is intended for this.

Modern (Intensive) Farming

Modern (Intensive) farming is for mass production of crops that can supply enough for a whole lot of consumers. It utilizes large land area with big investments on using labor, fertilizers and pesticides. The main reason for this type of farming is to gain profit. Since it is used for commercial production, this makes use of the latest machinery and technology to further enhance its output.

We used to describe agriculture in terms of the differences in what farms produced—whether corn, beans or livestock. But modern agriculture has at least five dimensions that might better describe and characterize the agriculture of today and tomorrow.

Types of farms

Today, we have at least three distinct types and sizes of farms: lifestyle, mid-size and commercial. Lifestyle farmers are rural residents who have other employment. The reason they farm doesn't have much to do with making money or their standard of living; instead, it's about a lifestyle that they want for themselves and their families.

The mid-size group increasingly is made up of dual-career farmers who choose to both farm and have a full-time, off-farm job. In many cases, they're professionals—bankers, teachers, etc.—and they are pursuing long-term careers in both their farm and non-farm employment. Through technology, they can farm more acreage, in some instances, 1,000 acres or more.

The full-time, commercial producer represents a segment of agriculture that is becoming larger. And farming is as much, if not more, a business as a way of life. Today's large-scale farms often comprise 5,000 or more acres.
Products, services and markets

No longer are agricultural products just commodity corn, beans, beef, pork and dairy. We're now expanding our markets in many dimensions by producing new products and providing new services. An increasing percentage of agricultural output is being used for new products in the bio-energy, pharmaceutical and industrial markets, as well as value-added and alternative enterprises. Modern agriculture also has paved the way for a segment of farmers who provide custom-farming services to other producers.

Science, technology and innovation

Science and technology have profoundly changed and redefined agriculture. Through scientific advances in biotechnology and nutritional technology, we have learned how to do a better job of growing plant and animal products.

Information technology has come to the agricultural industry, as farmers are now using the type of information technology—computers, cell phones, PDAs, global positioning systems—that is common in the non-agricultural industry.

Process control technology enables us to be much more precise in what we're doing in farming. With GPS and auto-steer, we can go up and down the field with 1-inch tolerances. What that does—for any of you who have tried to plant corn in the middle of the night—is allow us to make farming a 24-hour-a-day operation. Technology has allowed us to bring biological manufacturing to the agricultural industry.

New business models

Another characteristic of the new agricultural industry is new business models. Agriculture was built on a commitment to independence—farmers who made independent decisions about what to do and what not to do. Now, we're increasingly changing the business model to an interdependent one through contract production, qualified suppliers and food supply chains. Of all the changes in agriculture, these new ways of doing business are probably the most controversial because they challenge the fundamental value of independence—of choosing what we do and with whom we do business.

Performance assessments

We're also changing the way we measure success and determine what is both individually and socially acceptable. Previously, farmers competed primarily on a cost basis—being the low-cost producer. In modern agriculture, farmers not only have to compete on cost, but on quality and speed as well. Modern farmers also are more environmentally responsive and committed to their communities. They understand that being a successful farmer is more than just the bottom line on a profit-and-loss statement.
**Difference between Subsistence Farming and Modern (Intensive) Farming**

These two takes advantage of fertile lands that is basically abundant to almost everywhere. Though subsistence farming is mainly done for survival, but somehow it is vulnerable to weather changes and pests attack which could pose a problem. It uses simple tools and small amount of animals to toil the land so there is that possibility that the crops they grow might not be of the best quality. Intensive on the other hand, uses the latest technology to grow crops the most efficient way and weather conditions are also taken into consideration in order attain optimum harvest.

Both farming yield results, however the difference can simply be broken into the one for gaining profit while the other would be for personal consumption. Regardless as to what method is using in raising crops, the important thing is that it is enough to sustain one’s needs be it for financial means or otherwise.

**In brief:**

- Subsistence farming is used as a primary way for a family or a community to have food served on their table, the whole year round. It is mainly done for survival, but somehow it is vulnerable to weather changes and pests attack which could pose a problem. It uses simple tools and small amount of animals to toil the land.

- Modern (Intensive) farming is for mass production of crops that can supply enough for a whole lot of consumers. The main reason for this type of farming is to gain profit. It uses the latest technology to grow crops and to attain optimum harvest.

**6.2 ALTERNATIVE FARMING**

When we make a review about agricultural history, we can call agriculture as an occupational field which people have been dealing with since the history of mankind when the first human is created in a profession where people can say that cheek by jowl. According to the date of the existing conjectures, people first felt the need of food by hunting as a hunting society, and then the society discovered farming by developing as a collecting society.
Since the old farming style till now, people have found a lot of methods that will ease agriculture and upon the production of steamed and later on the oil machines more people have started to deal with farming so farming has become a kind of work that can easily be done. There are now opportunities for alternative farming by the help of new farming methods.

**Alternative Farming Methods**

**Organic Farming**

**What is Organic Farming**

Organic farming is a agricultural method that includes, plant rotation, green manure, compost, biological harmful control, and it based on the mechanic tillage to ensure soil productivity, and also it refuses or restricts synthetic fertilizer, pesticide, hormone, animal feed additives and genetically modified organism.

---

**The Importance of Organic Farming**

First of all Organic farming is agriculture within the framework of certain rules. This is particularly the soil, including water, air, and animals do not harm other creatures living in the environment and protecting nature means that a production.

**Historical Development of Organic Farming**

The development of organic farming in the world is based on the 1930s. It is known that European organic agriculture started with the “bio-dynamic agriculture” statement of Rudolf Steiner and was developed by Hans Mueller in Sweden and by Eve Alfour and Albert Howard in the UK and by Masanobu Fukuoka in Japan in the 1930s and 1940s. A lot of farms in Europe started organic farming in the 1960s.
Good Agricultural Practices

What is Good Farming

Good agricultural practices cover all stages of production starting from the soil and to the dining table for people. Before giving a decision, it is important to know about agricultural activities or products which were produced in the field before, to assess the effects on the human health and environment. If there are some risks which may not be taken under control, these areas should not be used in good agricultural practices.

How can good agricultural practices be achieved?

Producers should assess risk before the decision of production. Risk assessment should be done by taking into consideration the type of soil, erosion, ground water level and its quality, the presence of water supplies, the first use of the land, and the presence of areas having parasites and other insects and its effects on the neighbor lands. Rotated agriculture should be applied in order to protect the health of the soil, to reduce addiction to agricultural chemicals, and to achieve plant health at maximum level.

Agriculture without Soil

Agriculture without soil is a method of growing plants using mineral nutrient solutions, in water, and the realization of solid media without soil. The aim of agriculture without soil is to achieve food development by nutrient solutions, to meet the nutrient, water and material needs of the plants without stress, and to achieve these in the most economical way.
Agriculture without soil is a method that is used especially on greenhouses and recently it has started to be used also in open areas.

7-BEST PRACTICES:

The farmer education meetings made by Agricultural Directorate of Yozgat Province

8-METHODOLOGIES:

In our project team there are four expert Agricultural Engineer and one Veterinarian. The training sessions will be carried out by this project team. In addition, if needed assistance will be gotten from other institutions. Trainings will be carried out in the meeting hall of our Provincial Directorate and in the villages in the form of mutual exchange of information with farmers and question and answer structure.

9-REFERENCES:

Various web sites, Agricultural Directorate of Yozgat Province