



UNIVERSITI
TEKNOLOGI
MARA

AGROTECH
HOLDINGS SDN BHD

INDUSTRIAL FIELD TRAINING REPORT

AGROTECH HOLDINGS SDN BHD

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Programme : Diploma in Chemical Engineering

Student Id : 2018296992

Intern Duration : 13/9/2020 to 7/1/2021

Supervisor : Dato' Abul Khair Bin Saad

Company Address : 5A, Jalan Tiaj 2/1, Taman Industri
Alam Jaya, 42300 Bandar Puncak Alam, Selangor.

Type of Company : Healthy Food Products
Manufacture

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1.0 INTRODUCTION

Industrial Training is a required subject for EH110, Chemical Engineering, which students in the final semester of their Diploma at Universiti Teknologi MARA (UiTM) would be assigned. This industrial training is significant because it allows students to apply theories learned in both core and non-core courses in a real industry and working environment.

The goal of the training is to expose students to the real world of engineering, or real life experience, not just through theory but through firsthand experience, so that they can appreciate and apply all of the theoretical knowledge they have acquired. The students will then be able to perform basic engineering tasks like writing a technical report, communicating effectively with colleagues, managing a specific task or project, and exchanging ideas or opinions for the benefit of the industries.

The knowledge gained from industrial training would be extremely valuable to students since it will enable them to enhance and upgrade themselves in order to become better and more mature in dealing with unforeseen situations. The industrial training lasts about 17 weeks and includes 7 credit hours. The Board of Engineers' (BEM) standards for the Engineering Technology Accreditation Council (ETAC) for undergraduate students will be met.

Starting 13th September 2021, I have undergoes my industrial training at Agrptech Holdings Sdn Bhd which is a healthy foods product manufacture company.

2.0 COMPANY BACKGROUND



Figure 1 : Agrotech Holdings Sdn. Bhd. Logo

Agrotech Holdings is a healthy foods company manufacturer company that produce three types of product which are tablet, powder, and liquid. Agrotech is establish since 20/3/2015, based in Puncak Perdana, Selangor. Agrotech was started as a vision to provide consultant, manufacture and production to their client to produce their own product. Agrotech also is a supplier of raw materials.

Agrotech is a 100% Bumiputera company that produces biotechnology-based products based on the latest scientific findings. Only plants that are known to be nutritious are used in producing products. Agrotech use only high quality plant and herbal extracts from various parts of plants and herbs.

Agrotech will provide service such as advisory services in producing products that can be commercialized, research of raw materials and products, product development, register products with the government - Halal Jakim, Ministry of Health, and many more. Agrotech aim to provide their services for the local at a affordable prices. Therefore, small business in Malaysia can start their business with ease as their acquire consult from Agrotech. Agrotech will strive to assist their client to fulfill their dreams.

One of the biggest client from Agrotech is Dato' Sri Aliff Syukri bin Kamarzaman for his successful product which is D'Herbs. Other than him is a small comoany name Mayang for thwir product, Myt Berry Drink. The latest products are NTDOT Coffee and Peach Glow Beauty. Agrotech also produce their own product such as Agar Bomb, Nutribomb, Café Bomb and many more

3.0 COMPANY LOCATION

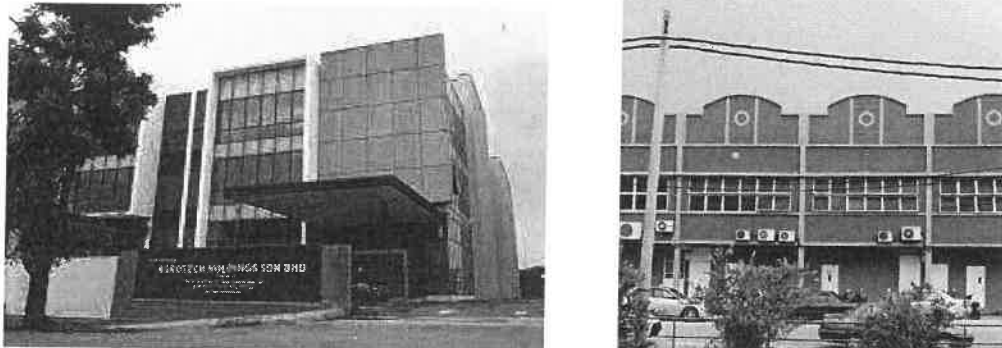


Figure 2 : Agrotech Holdings Sdn. Bhd. Facilities

To complete their Diploma in Chemical Engineering, every Universiti Teknologi MARA (UiTM) student was given the opportunity to search out and identify companies that were linked to their various courses. Due of the Covid-19 outbreak, most companies have temporarily halted their internship programmes. Fortunately, Agrotech Holdings accepted me as their intern. Agrotech consist two facility which for management facility (left) and production facility (right). Figure 3 below shows the location of Agrotech Holdings Sdn. Bhd. Which is located :No 5A, Jalan Tiaj 2/1, Taman Industri Alam Jaya, 42300 Bandar Puncak Alam, Selangor.



Figure 3 : Agrotech Holdings Sdn. Bhd. Location

4.0 ORGANIZATION CHART



Figure 4 : Agrotech Holdings Sdn. Bhd. organization chart

5.0 PROCESS FLOW

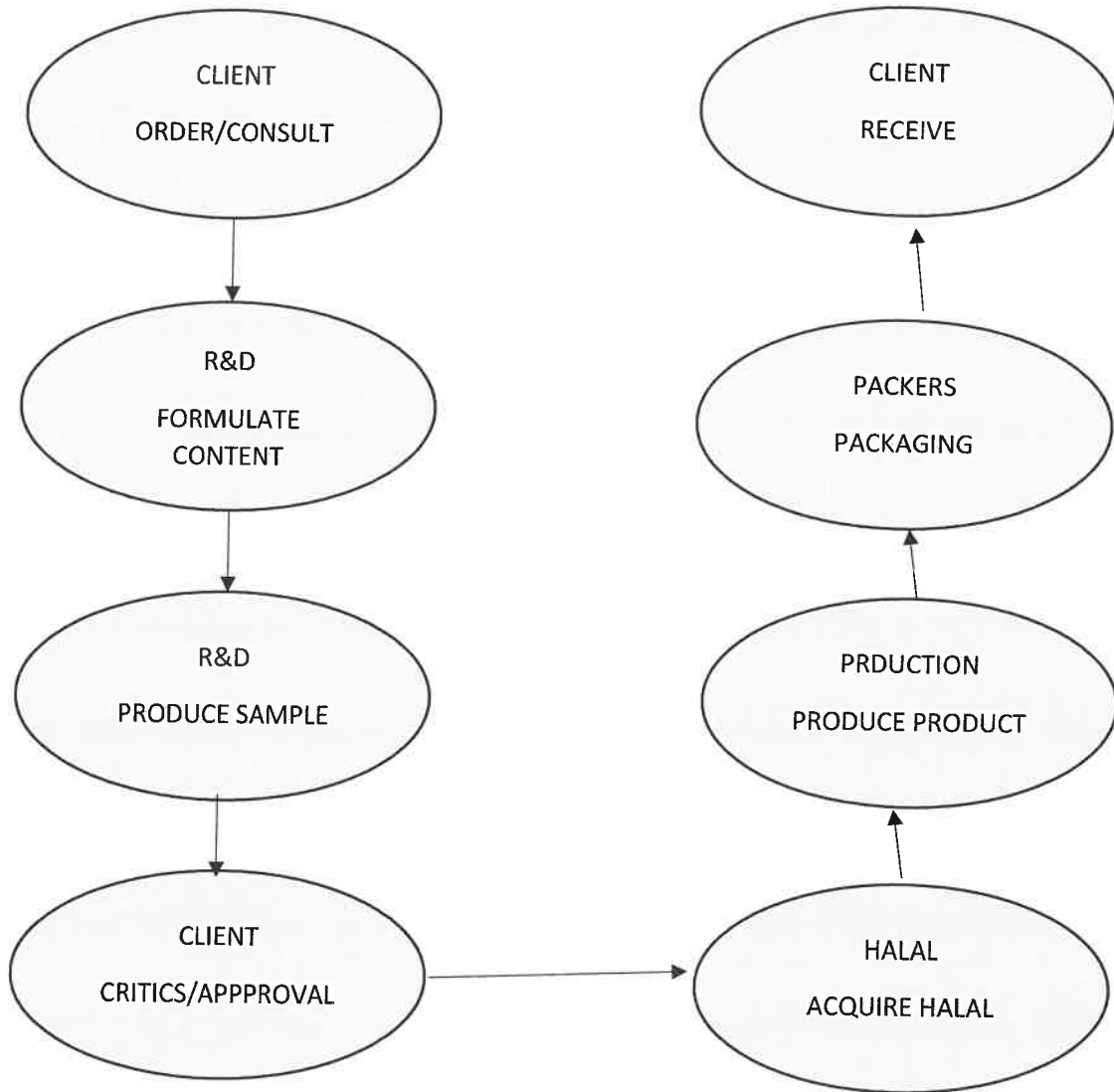


Figure 5 : Process Flow Diagram

5.1 PROCESS FLOW DESCRIPTION

There are four major department in Agrotech Holdings which are Research and Development, Halal, Production, and Packers. It is start from the executive of the R&D department meeting with the client to take note their demands. Then the staff under him will produce sample based on the executive formula in the R&D laboratory at the production facility. All of the raw materials are in the lab. The weight of the sample is depends on the client, usually around 250 grams for 10 packets (25 grams each packet), for powder while 2500 ml for 10 bottles (250 ml each bottle), for liquid. After the staff produce the sample, it will be given to the client to seek their approval or critics to improve. Once the client approve the sample, the sample will be undergoing Halal department to get the Halal certificate, it is a long process to achieve it. Next the formula of the sample will be given to production department to produce a large number of weight and packets, usually 1000 packets or bottles. Afterwards, the packers department will pack the product that is suitable with the product. Lastly, the product will be given to the client.

6.0 WEEKLY ACTIVITY

Agrotech Holdings is open from Monday to Friday with working hours from 8.30 a.m. to 5.30 p.m. while for Friday it will end at 6.00 pm. The employees work for 9 hours a day including break at 10.15 a.m. to 10.30 a.m and lunchtime at 1.15 p.m to 2 p.m. The table for working hours are given below :

Days	Shift starts	Break	Lunchtime/Pray	Shift ends
Monday – Thursday	8.30 a.m.	10.15 – 10.30 a.m.	1.15 – 2.00 p.m..	5.30 p.m.
Friday	8.30 a.m.	10.15 – 10.30 a.m.	12.30 – 2.00 p.m.	6.00 p.m.

Table 1 : Agrotech Holdings Sdn. Bhd. working shift

The activities done at the company is recorded in a logbook that already been provided by the faculty. The activity that is being done daily or weekly is being written and will be shown as prove that the internship conducted by the student is complete successfully.

WEEK 1 (13/09/2021 – 17/9/2021)

The internship training starts at 13th September 2021, the first day started out with a brief from the supervisor which is Dato' Abul Khair Bin Saad regarding the background of the company, the process flow, rules and regulations and the internship programme. Afterwards, the employees and the intern-trainee went an ice breaking session together to get acquainted with each other. I had been given a workplace at the management facility which is very comfortable. The first task from the supervisor was to learn about the company's product such as Agarbomb, Nutribomb, Crystalbomb and many more. Furthermore, my mentor in the R&D department which is Miss Syafawani teach me how to produce sample for our client. She take me to the R&D laboratory at the production facility and teach me on how to use the equipment in the lab for making the sample. In this week, I have produce two samples for the clients. Miss Syafawani also train me on how to use pH meter, refractometer and viscosimeter to determine the sample;s pH value, brix value and viscosity value respectively. It is important for reference in the future.



Figure 6 : equipment in R&D laboratory

WEEK 2 – WEEK 3 (20/09/2021 – 01/10/2021)

After completing the first week of internship, I had been given a task to study the raw materials in the company such as turmeric dry extract, l-cysteine, apple flavor powder, sodium benzoate, astaxanthin, vanilla flavor, ginger powder, fructose crystalline and many more. I also has to learn and record the allergen declaration, content of analysis, and material safety data sheet of the raw materials and products in the company. All of this was to prepared for audit from the higher-ups. There is a Halal Awareness event for the employees to know how much important is Halal. lastly there is only one sample to be produce for the client.

WEEK 4 – WEEK 8 (11/10/2021 – 12/11/2021)

On week 4, the new skills that I had learn is packaging the samples. Miss Syafawani teach me on how to pack the samples properly. It was been done and the R&D laboratory using packing machine. Mostly the client will ask for powder form product, rarely in tablet form, sometimes in liquid form. In this week is the first time I got order from the client in liquid form. It is very different to make compared to powder form. Other than that, I mostly work with the raw material's content of analysis, produce sample in powder form for the client, understand the properties of the raw materials in the company. I also help in the finance department to pick up the bank draft for the company at Bank Islam.

WEEK 9 – WEEK 16 (15/11/2021 – 06/01/2021)

On week 9 onwards, I mostly spend my time at production facility, it is due to dispose the old sample and expired raw materials. My co-workers teach me on how to dispose these properly, it is the same as in the laboratory at UiTM. The powder form will be dispose separately with their packets, same as tablets. While for liquid form, the liquid will be dispose in a suitable container. Half of the weeks I spend my time on my laptop to organize the data of the raw material that had been there since 2015. There were also where I sick for a week due to the flood at Shah Alam, when I get back to work, I double my work-rate for the company. Other than these, I usually produce sample for the client, pacakaging, determine the properties of the samples and organize data for the company.

7.0 MINI PROJECT

The mini project that been given to me from my supervisor is to make a new product for the company by using my own formula for the content of the sample. I can get any help from the staff including my supervisor, but most of the work I have to do it from formulate to packaging. I received the project in the middle of my intern and been given time until the last week of my intern. I do my own research for the new product from various aspect such as taste, color, properties, smell and many more. There are ups and downs in my project due to lack of knowledge, but with the help of my co-workers, I had make a new coffee with honey flavor and it is similar with Extra Joss that contains Royal Jelly. It will give the consumer extra energy to start their day. The ingredients in my coffee other than honey and royal jelly are instant coffee brazil, sugar, calcium carbonate, sodium citrate, sodium triphosphate, creamer, maltodextrin.

8.0 CONCLUSION

I can conclude that, a lot of new things that I have learn at Agrotech Holding such as gained more knowledge about production management, improving our skills and meet new people while can improve our communication skills. Nevertheless, the time flies so fast and 4 months really given a new experience and knowledge in industrial training. I also get more exposure when working in a real life situation.

Working for three months really taught us to make a good quality work ethic. Other than that, I learn how the industry work and all the production process from raw material to final product. I have gained many valuable experiences, learned about teamwork, decision making, problems solving, time management and many other qualities which are required for a perfect employee.

Getting feedbacks from clients and having discussions are important for us. These kinds of interactions are really important for this company to do a better job. I am satisfied with the industrial training that provide lots of knowledge and experience which can be use in the future.