

CHAPTER 1

INTRODUCTION

1.1 Background

In agronomical industries, one of the factors that affect the proper type of pesticide is the weather condition. It is no surprise that the weather condition of one area with another are varied. This fact results in the variety of plants grown in different areas. In addition, the sales of every pesticide product of a company are varied too. Hence, it is quite an obstacle for a company to decide the type of pesticide products to be supplied that correspond the weather condition in the field.

The decision-making of the supplied products by the Head of the company requires a selective grading based on the appropriate parameters. The parameters include a monthly transaction data and the weather condition in the field. These parameters then support the system to provide a grading system in a form of probability or percentage that covers the tendency of which type of pesticide products to be supplied by the Head of the company. The system that is built in this project is a web technology-based system. The system is built using the PHP programming language; the obtained data is processed in a form of Array Associative. Naïve Bayes' programming algorithm is applied in the system. It will later produce the probability value of every transaction and weather calculation. The transaction data is obtained from the data recorded by the administration staff while the weather data is obtained from the notes or the history from www.worldweatheronline.com.

Therefore, PT. Dharma Guna Wibawa is selected to be the place of this case study to apply the Decision Support System. It benefits the Head of the company to accurately decide the pesticide products to be supplied and avoids any errors that may cause any loss for the company.

1.2 Scope

In the realization of this project, there are limitations that are taken into consideration so that this project delivers a well-produced system. There are:

1. Does Naïve Bayes algorithm successfully generate a value or percentage of the tendency of the type of pesticide products to be supplied?
2. Does Naïve Bayes algorithm benefit the Head of PT. Dharma Guna Wibawa in decision-making activity?
3. The scope of data used in this project is four years of sales data starting from 2015 until 2018 and weather data from 2015 until 2018.

1.3 Objective

The objective of this project is to be able to implement the Naïve Bayes method in decision-making of the supplied products of PT Dharma Guna Wibawa.

