

ABSTRAK

Penelitian bertujuan untuk menentukan konsentrasi dan frekuensi pemberian *pyraclostrobin* terbaik bagi klon KKM4 di dataran menengah yang mampu meningkatkan pembentukan bunga, menekan kejadian layu pentil dan busuk buah kakao, serta meningkatkan hasil tanaman kakao. Tanaman kakao yang digunakan dalam penelitian ini yaitu kakao klon KKM 4 dari hasil perbanyakan sambung pucuk. Percobaan disusun dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan tiga blok sebagai ulangan. Satu set percobaan diperlakukan konsentrasi *pyraclostrobin* dan diaplikasikan pada frekuensi yang berbeda yaitu satu kali 2 minggu dan satu kali 4 minggu. Adapun konsentrasi *pyraclostrobin* yang diuji adalah 31,25; 41,67; dan 62,50 ppm. Selain faktor-faktor tersebut terdapat perlakuan tambahan yang berfungsi sebagai kontrol yaitu tanpa fungisida (kontrol 1) dan penggunaan fungisida berbahan aktif Tembaga Oksida dengan konsentrasi 1.666 ppm dan frekuensi pemberian satu kali 4 minggu (kontrol 2). Variabel yang diamati meliputi kondisi iklim mikro di lokasi penelitian, jumlah bunga per 60 cm cabang, tingkat layu pentil, jumlah busuk buah, jumlah polong/tanaman, bobot polong/tanaman, jumlah biji/tanaman, bobot segar biji/tanaman, dan bobot biji kering/tanaman. Data yang diperoleh diuji menggunakan analisis varian (ANOVA) dan Kruskal-Wallis pada taraf kepercayaan 95%, kemudian dilanjutkan dengan Uji Beda Nyata Terkecil (BNT) dan Mann Whitney U Test. Hasil penelitian memberikan informasi bahwa pemberian *pyraclostrobin* tidak berpengaruh nyata terhadap peubah jumlah bunga yang diamati, jumlah layu pentil, dan busuk buah, namun berpengaruh nyata pada variabel hasil tanaman yang berupa jumlah polong/tanaman, bobot polong/tanaman, jumlah biji/tanaman, bobot segar biji/tanaman, dan bobot biji kering/tanaman kakao klon KKM4 di dataran menengah. Pemberian *pyraclostrobin* dengan konsentrasi 62,50 ppm dan frekuensi pemberian satu kali 4 minggu dapat meningkatkan bobot biji kering per tanaman kakao Klon KKM 4 di dataran menengah. Namun, tidak berpengaruh nyata dalam meningkatkan jumlah bunga serta menekan busuk buah dan layu pentil.

Kata kunci : busuk buah, bobot biji kering, layu pentil, *pyraclostrobin*, tembaga oksida

ABSTRACT

This study aims to determine the best concentration and frequency of pyraclostrobin for KKM 4 clones in the middle plains that were able to increase flower formation, decrease the cherelle wilt and blackpod disease, and improve the yield of cacao crops. The cocoa plants used in this study is KKM 4 clones from the result of topping up multiplication. The experiment was arranged in a Randomized Completed Block Design (RCBD) with three blocks as replications. A set of experiments was treated concentration of pyraclostrobin and applied at different frequency, that is one time 2 weeks and one time 4 weeks. The concentration of pyraclostrobin tested in this study were 31.25; 41.67; and 62.50 ppm. In addition to these factors, there is additional treatment that functions as a control, that is without fungicides (control 1) and use active ingredient Copper oxcide with concentration 1,666 ppm and frequency one time 4 weeks (control 2). The variables observed included the micro-climatic conditions at the study site, the number of flowers formed, the rate of cherelle wilt, rate of fruit rot (blackpod), number of pods/plant, pod weight/plant, number of beans/plant, fresh weight of beans/plant, and weight of dry beans/plant. Data were analyzed of variance (ANOVA) and Kruskal-Wallis at the level of condifdence 95%, and continued with the Least Significant Difference (LSD) and Mann Whitney U Test if the results of analysis of variance and Kruskal-Wallis showed significant differences among treatments. The results of the study provide information that concentrations of pyraclostrobin given to cocoa crop had no significant effect on the number of flowers observed, the rate of cherelle wilt, and fruit rot, but it had a significant effect on plant yield variables in the form number of pods/plant, pod weight/plant, number of beans/plant, fresh weight of beans/plant, and weight of dry beans/plant. The giving of pyraclostrobin with a concentration of 62.50 ppm with frequency of spraying one time 4 weeks had the best real results and could increase the weight of dry beans/plant of the KKM4 clone cocoa plant in the middle plain. But had no significant effect on the number of flowers observed, the rate of cherelle wilt, and fruit rot.

Keywords: cherelle wilt, copper oxcide, fruit rot, pyraclostrobin, weight of dry beans