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PENGARUH PACLOBUTRAZOL DAN HIDROGEN SIANAMIDA TERHADAP PERTUMBUHAN DAN PEMBUNGAAN TANAMAN MANGGA 'ARUMANIS'

Effect of Paclobutrazol and Hidrogen Sianamida on Growth and Flowering of Mango 'Arumanis'

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ABSTRACT

The objective of the experiment was to observe the effect of application of paclobutrazol as growth retardant and hidogen sianamida which can act as dormancy break on growth and flowering of Mango cv. Arumanis. Experiment was conducted at IPB Experimental Station, Tajur, Bogor (250 m above sea level), from April to August 1996.

Three-year-old of Mango cv. Arumanis trees were used for this experiment. Trees were planted in the field with spacing of 5 m x 5 m. Experiment using Randomized Block Design, consisted of two factors. First factor was dozage of paclobutrazol i. e. 0 ppm as control and 1000 ppm. Second factor was application time of hidrogen sianamida i. e. no treatment (control), 15 days after paclubutrazol application (HSP), 30 HSP and 60 HSP. Each treatment was replicated six times using one tree for each replication. Observation was conducted once a week on the sprouting bud number, shoot length, flowering time, cluster number, and cluster size.

Paclubutrazol application significantly played a role in off seson flower induction of mango Arumanis, flower bud sprouting occurred on 61-71 days after paclubutrazol treatment. Percentage of flowering on treated trees was 83.3-100%, while no flowering was observed on the kontrol trees. Moreover, paclobutrazol application significantly inhibited vegetatif growth through decreasing total bud sprouted and shortening shoot length.

Time of hidrogen sianamida application tended to increase total of bud sprouted. To generatif growth, time of hidrogen sianamida application tended to increase cluster number and significantly increase cluster length. Application time of hidrogen sianamida 60 HSP showed vegetatif and generatif growth better as compared with other treatments.

RINGKASAN

Percobaan bertujuan untuk mengetahui pengaruh paclobutrazol sebagai zat penghambat tumbuh dan hidrogen sianamida sebagai zat pemecah dormansi terhadap pertumbuhan dan pembungaan tanaman mangga. Percobaan dilaksanakan di kebun Percobaan IPB Tajur, Bogor, dengan ketinggian tempat 250 meter di atas permukaan laut. Percobaan dilaksanakan pada bulan April sampai dengan bulan Agustus 1996.

Bahan yang digunakan dalam percobaan ini adalah tanaman mangga varietas Arumanis hasil okulasi berumur 3 tahun ditanam di lapang dengan jarak tanam 5 m x 5 m. Percobaan menggunakan Rancangan Acak Kelompok faktorial dengan dua faktor yaitu dosis paclobutrazol dan waktu aplikasi hidrogen sianamida. Faktor pertama adalah dosis paclobutrazol yang terdiri dari 2 taraf yaitu 0 ppm (control) dan 1000 ppm. Faktor kedua adalah waktu aplikasi hidrogen sianamida 0.2% yang terdiri dari 4 taraf yaitu tanpa hidrogen sianamida (kontrol), 15 hari setelah aplikasi paclobutrazol (HSP), 30 HSP dan 60 HSP. Setiap perlakuan diulang 6 kali dengan tiap ulangan terdiri dari satu tanaman sehingga secara

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