

Determination of minimum inhibitory concentration from chemical Pesticides on bacteria

Azotobacter numbers with period of incubation different .

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ABSTRACT

Three Laboratory experiments were carried out with (CRBD) design, to Study the effect of three chemical pesticides namely; fungicide (benomyl) ,Insecticide (super atracedein) and herpicide (grawand ab) with (4) levels for each treatment on A.chroococcum number .Three dilution of inculation bacterial (10^{-4} , 10^{-5} , 10^{-6}) with four period of Incubation (3, 6, 12 and 18) day were used for measuring (MIC) of bacterial cell number. The results showed that (MIC) of fungicide with dilution of (10^{-4}) is (1.2) g.L-1 and (0.6)g.L-1 for each dilution of (10^{-5} and 10^{-6}) for (18) day Incubation . The (MIC) of Insecticide is (0.875)ml.L-1 for the period of (6,12 and 18) day Incubation with all dilution Inculation . The (MIC) of herbicide is (20)ml.L-1 for (6) day Incubation with dilution of 10^{-4} , 10^{-5} and (10) ml .L-1 for dilution of 10^{-6} . For the period of Incubation (12,18) day the (MIC) is (10)ml.L-1 for dilution 10^{-4} and (5) m.L-1 for both dilution of 10^{-5} and 10^{-6} . The results showed that the dilution of 10^{-4} is considered resistant for concentration of pesticide as compared with 10^{-5} , 10^{-6} .