

Tingkat Risiko Kesehatan Lingkungan Akibat Paparan Residu Pestisida Bahan Fungisida dalam Kebiasaan Mengonsumsi Air Minum pada Wilayah Pemukiman Pertanian di Desa Jonggol, Kabupaten Bogor Tahun 2022 = Level of Environmental Health Risk Due to Exposure to Pesticide Residues of Fungicidal Substances in the Habit of Consuming Drinking Water Sources in Agricultural Residential Areas in Jonggol Village, Bogor Regency in 2022

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Abstrak

Pestisida merupakan bahan beracun yang memiliki potensi menimbulkan dampak negatif terhadap lingkungan dan gangguan kesehatan manusia. Petani di Desa Jonggol merupakan populasi berisiko untuk terpajan pestisida. Penelitian ini bertujuan untuk mengetahui estimasi risiko paparan pestisida bahan fungisida terhadap kebiasaan mengonsumsi sumber air minum pada petani di wilayah pemukiman pertanian Desa Jonggol pada tahun 2022. Penelitian ini merupakan penelitian deskriptif menggunakan desain studi Analisis Risiko Kesehatan Lingkungan (ARKL). Data penelitian ini diperoleh dari hasil wawancara menggunakan kuesioner, observasi, dan pengukuran residu pestisida pada sumber air minum di Desa Jonggol. Hasil penelitian menunjukkan bahwa konsentrasi maksimal pestisida di sumber air minum adalah 0,0855 mg/l pada titik 1 air sumur di Kampung Kujang (diatas baku mutu) dengan radius 2 m dari pertanian. Titik 2 yaitu Air Sungai Kampung Bengkok & Titik 3 yaitu Air Sumur Kampung Karni dengan radius sekitar 20 m dari lokasi pertanian yakni tidak terdeteksi pestisida. Mayoritas petani mengonsumsi air minum yang berasal dari Air Sumur lokasi pertanian. Perhitungan intake non karsinogenik (realtime) adalah 0,00246 mg/kg/hari, sedangkan untuk perhitungan intake karsinogenik (realtime) adalah 0,001056 mg/kg/hari. Berdasarkan perhitungan karakteristik risiko non karsinogenik adalah 0,246 yakni memiliki nilai RQ 1 berarti belum menimbulkan risiko efek non karsinogenik. Nilai Excess Cancer Risk yaitu risk probability sehingga dibutuhkan manajemen risiko. Risiko Kesehatan secara non karsinogenik dan karsinogenik didapatkan pada gangguan kesehatan petani yakni rata-rata petani mengalami gangguan kesehatan sekitar 78%, gangguan pernafasan 74,7%, dan gangguan pencernaan 48,4%. Selain penyebab dari kebiasaan mengonsumsi sumber air minum yang tercemar di pertanian, terdapat faktor lainnya yakni petani memiliki kebiasaan merokok 72,5%, melakukan aktivitas pembakaran 95,6%, dan tinggal di lokasi pertanian 96,7%, mengonsumsi makanan yang dibakar 78%. Kesimpulan dalam penelitian ini petani tetap di Desa Jonggol telah memiliki risiko baik secara realtime maupun lifetime. Perlu dilakukan upaya manajemen risiko untuk melindungi petani agar tidak timbulnya masalah kesehatan.

.....Pesticides are toxic materials that have the potential to have a negative impact on the environment and human health problems. Farmers in Jonggol Village are a population at risk of being exposed to pesticides. This research aimed to determine the estimated risk of exposure to pesticides fungicidal substances to the habit of consuming drinking water sources in farmers in the agricultural settlement area of Jonggol Village in 2022. This research was a descriptive study using the design of the Environmental Health Risk Analysis (ARKL) study. The data of this research was obtained from the results of interviews using questionnaires, observations, and measurements of pesticide residues on drinking water sources in Jonggol Village. The

results showed that the maximum concentration of pesticides in drinking water sources was 0.0855 mg / l at point 1 of well water in Kampung Kujang (above quality standards) with a radius of 2m from agriculture. Point 2 was Crooked Village River Water & Point 3 is Karni Village Well Water with a radius of about 20 m from the agricultural location, no pesticides were detected. The majority of farmers consumed drinking water derived from Well Water in agricultural locations. The calculation of non-carcinogenic intake (real-time) was 0.00246 mg / kg / day, while for the calculation of carcinogenic intake (real-time) was 0.001056 mg / kg / day. Based on the calculation of the characteristics of non-carcinogenic risk was 0.246, having an RQ value < 1 meant that it had not caused a risk of non-carcinogenic effects. The value of Excess Cancer Risk was risk probability, so risk management was needed. Non-carcinogenic and carcinogenic health risks were found in farmers' health problems, the average farmer experienced health problems around 78%, respiratory disorders 74.7%, and indigestion 48.4%. In addition to the causes of the habit of consuming polluted drinking water sources in agriculture, there were other factors, farmers had a smoking habit of 72.5%, carried out burning activities 95.6%, and lived in agricultural locations 96.7%, consuming 78% burnt food. The conclusion was that farmers who remained in Jonggol Village already had risks both in real time and lifetime. It was necessary to make risk management efforts to protect farmers from the onset of health problems.