

Pupuk Kompos yang Mampu Menurunkan Kandungan Residu Insektisida di Lahan Pertanian

Fertilizer Compost that can Reduce Insecticide Residue Content in Agricultural Land

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Permasalahan residu insektisida kimia sudah menjadi permasalahan serius karena sifatnya yang persisten dan toksik. Residu yang umum ditemukan di air, tanah, dan tanaman adalah klorpirifos dan lindan. Di sisi lain, ketersediaan bahan baku pupuk kompos seperti abu dari limbah pabrik gula (blotong) dan kotoran sapi jumlahnya melimpah dan belum dimanfaatkan secara optimal. Klorpirifos dan lindan sangat toksik terhadap ikan dan burung, sedangkan efeknya terhadap manusia bersifat karsinogenik. Kekuatan tinggal klorpirifos di dalam tanah sekitar 60-120 hari, sedangkan lindan sekitar 15 bulan. Pupuk kompos hasil invensi Balitbangtan melalui Balai Penelitian Lingkungan Pertanian ini mampu mengikat kandungan residu klorpirifos sebesar 0,0023 ppm dan lindan sebesar 0,0068 ppm.

The problem of chemical insecticide residue has become a serious problem because of its persistent and toxic. The common residue found in water, soil, and plants is chlorpyrifos and lindans. On the other hand, the availability of raw materials of compost fertilizer such as ash from sugar mill waste (blotong) and cattle manure is abundant and not yet optimally utilized. Chlorpyrifos and lindans are highly toxic to fish and birds, while their effects on humans are carcinogenic. The survival rate of chlorpyrifos in the soil is about 60-120 days, while lindan is about 15 months. Compost fertilizer invention from IAARD through Indonesian Agricultural Environment Research Institute is able to bind residual content of chlorpyrifos 0.0023 ppm and lindan equal to 0.0068 ppm.

