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Methemoglobin forming effect of imidacloprid and d exposure

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Dimethoat as a typical organophosphorous pestici anticholinergic action. Literature that has appeared in tr years shows that influence on cholinergic system cann all its toxic effects, for example hypoxia. Imidacloprid i sentative neonicotinoids - a class of widely used insei can also cause hypoxia. Taking into account the chem ture (dimethoat contains nitrogroup and imidaclopric amides) we suppose that one of the possible reasons for tl could be increase of the methemoglobin level in the t purpose of the study was to evaluate how exposure pesticides - isolated and in combination with sodium influences the methemoglobin level. Exposure was m white male rats. The rats received toxicants in minimun doses over a period of 28 days. Isolated exposure to im caused an increase of methemoglobin concentration in to the same levels as threshold dose of sodium nitra cation by dimethoat led to a two times higher methf level. In the case of combined exposure dimethoat ar

caused independent or antagonistic effect on increasing of hemoglobin level in blood. Combination of sodium nitrate and imidacloprid was more dangerous and led to summation and - in groups of animals - even to synergistic effect. Thus increase in methemoglobin level in the blood plays an important role in the mechanism of toxicities of dimethoate and imidacloprid.

1016/j.toxlet.2011.05.795