

Title Effect of ozone on the reduction of pesticide residue in baby corn (*Zea mays* L.)

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Abstract

Effect of ozone on the reduction of pesticide residue in baby corn (*Zea mays* L.) was studied. Baby corns were dipped in the solution of standard chlorpyrifos at a concentrations of 10 ppm for 10 minutes. They were exposed to ozone gas (O₃) and dipped in ozonated water at concentration of 200 ppm for 15, 30, 45 and 60 minutes. The results showed that both ozone gas and ozonated water could reduced pesticide residue in baby corns. Dipping in ozonated water for 60 minutes was more effective than exposing to ozone gas with the degradation percentage of pesticide residue at 68.35% and 31.87%, respectively. The second experiment, baby corns were exposed to ozone gas and dipped in ozonated water for 60 minutes and then stored at 10°C for 21 days. During storage time when compared with control, All methods were not significantly different in losing weight, color change, total solution solid (TSS) and browning. Moreover, after storage time for 21 days, it was found that pesticide residue degradation was increased from 12.38% to 21.88% and 65.81% to 77.92% in which exposed to ozone gas and dipping in ozonated water, respectively.