

NITROSAMINES FROM NITRIC OXIDE FUMIGATION

Stephen Corbett and Spencer S. Walse

USDA-ARS San Joaquin Valley Agricultural Sciences Center, Parlier, California,
USA, 93648-9757

Abstract. This work addresses the need to develop an understanding of regulatory issues related to the use of nitric oxide as a postharvest fumigant. Of particular interest is the formation of N- and S- nitrosated residues. N-nitrosamines represent a class of molecules generally recognized as mammalian carcinogens. We explore the reaction pathways that lead to N-nitrosamine formation from common agrochemicals and discuss regulatory implications cited by the United States Food and Drug Administration.