

Soybean cyst nematode (SCN) *Heterodera glycines* Ichinohe, a plant parasite, is one of the most serious pests of soybean. In this paper, we report that SCN is attracted to nitrate and its analogs. We performed attraction assays to screen for novel attractants for SCN and found that nitrates were attractants for SCN and SCN recognized nitrate gradients. However, attraction of SCN to nitrates was not observed on agar containing nitrate. To further elucidate the attraction mechanism in SCN, we performed attraction assays using nitrate analogs ( $\text{ClO}_3^-$ ,  $\text{SO}_3^{2-}$ ,  $\text{CO}_3^{2-}$ ). SCN was attracted to all nitrate analogs; however, attraction of SCN to nitrate analogs was not observed on agar containing nitrate. In contrast, SCN was attracted to azuki root, irrespective of presence or absence of nitrate in agar media. Our results suggest that the attraction mechanisms differ between plant-derived attractant and nitrate.

Nitrate and its analogs regulate the attraction of soybean cyst nematode.

