

## عنوان مقاله:

NEOTYPHODIUM ENDOPHYTES FOR CROP IMPROVEMENT

## محل انتشار:

اولین کنفرانس بین المللی ایده های نو در کشاورزی (سال: 1392)

تعداد صفحات اصل مقاله: 1

## نویسندگان:

Aghafakhr Mirlohi - *Professor, assistant professor and associate professor-College of agriculture Isfahan University of Technology, Isfahan, Iran*

Mohammad Reza Sabzalian - *Professor, assistant professor and associate professor-College of agriculture Isfahan University of Technology, Isfahan, Iran*

Mohammad Mahdi Majidi - *Professor, assistant professor and associate professor-College of agriculture Isfahan University of Technology, Isfahan, Iran*

## خلاصه مقاله:

Neotyphodium endophytes from Ascomycets have wide distribution among cool season grass species. The fungus lives in plant intercellular spaces of aerial parts and cannot disassociate from host tissues. It transfers vertically and through maternal host making gene escape of no concern. In the grass family Poaceae, fungal endophytes have been found in Poeae tribe in the genera Festuca, Lolium, and Poa, Bromeae tribe in the genus Bromus, Stipeae tribe in the genus stipa, Meliceae tribe, Aveneae tribe and Triticeae tribe. In Triticeae, the fungal endophytes have been found in Elymus, Hordeum and wild species of Triticum. The most widely known and demonstrated endophytes from genus Neotyphodium are N. coenophialum, N. lolii and N. uncinatum that infect tall fescue (*Festuca arundinacea* Schreb.) perennial ryegrass (*Lolium perenne* L.) and meadow fescue (*F. pratensis* Huds.), respectively. The symbiotic fungi enhance plant characters including performance, insect and mammalian deterrence, nematode resistance and tolerance to drought, salt and other biotic and abiotic stresses. Interaction between Neotyphodium endophytes and cool-season grasses culminates a defensive mutualism in which endophytes produce a range of alkaloids or stimulate the host grass to synthesize alkaloids and other secondary metabolites that protect macrosymbiont (host) from mammalian, insect, and nematode herbivores. Neotyphodium endophytes have been found in some Iranian grass species including *Bromus tomentellus* Melica persica, *Festuca arundinacea*, *F. pratensis* and *Lolium perenne*. This has opened new doors for improving new grass varieties using Neotyphodium-grass association

## کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/340149>



