AICHI STEEL

*Innovate Materials.*
*Create Tomorrow.*

# News Release

September 6, 2022
Aichi Steel Corporation

## Progress of Research into Next-Generation Iron Fertilizer “PDMA” Presented at International Plant Nutrition Colloquium

Aichi Steel Corporation (President: Takahiro Fujioka) gave an oral presentation at the 19th International Plant Nutrition Colloquium[*1] held in Foz do Iguassu City, Brazil, from August 23 to 26, 2022, where it spoke about the progress of its research into PDMA[*2], a biodegradable iron chelator being developed for practical use.

PDMA is expected to contribute to increased food production in the alkaline soils covering about one third of the land surface of the world. Articles about this fertilizer have been published in international scientific journals[*3] since 2021. With the positive response they have received, the Organizing Committee of the International Plant Nutrition Colloquium selected Aichi Steel to give an oral presentation.

During the presentation, we explained that PDMA is effective not only on rice but on corn and other crops and vegetables as well, which opens up the range of possible applications for alkaline soils.

Aichi Steel will continue communicating with researchers and fertilizer companies around the world as it works to acquire new development partners and customers going forward.

Effect of PDMA on alkaline soil fields (4 weeks after application)

Without PDMA

With PDMA

Organically synthesized PDMA powder


Presentation

[*1] An international congress held once every four years to discuss plant nutrition
[*2] A next-generation fertilizer created by modifying the chemical structure of mugineic acid, a natural iron chelating substance. PDMA is the abbreviation of proline deoxymugineic acid. It has an approximately tenfold greater effect than existing iron chelators and it gradually biodegrades in soil, making it environmentally friendly.
[*3] “Nature Communications” March 10, 2021 (British scientific journal)
“Plant and Soil” September 20, 2021 (Dutch scientific journal)