Kawsar Ali et al., Agrotechnology 2017, 6:4(Suppl)
DOI: 10.4172/2168-9881-C1-027

Organic nitrogen uptake: A novel pathway to improve nitrogen use efficiency and crop productivity

Kawsar Ali[1], **Davey L Jones**[2] and **Muhammad Arif**[1]
[1]Abdul Wali Khan University Mardan, Pakistan
[2]Bangor University, UK

Formulation of amino acid N fertilizer and uptake of organic N by plants has the ability not only to ensure N availability to plants particularly in N-limiting environments but also can manipulate the environmental hazards associated with over inorganic N fertilization. To support this view, clear experimental evidence is still lacking. In addition, the current experiments aimed to evaluate the uptake of organic N (Amino acid based N fertilizer) by plants in comparison with inorganic fertilizer (ammonia and nitrate) and investigate the mineralization rate of amino acid fertilizers. Overall commercial amino acid performed superior in terms of plant growth and mineralization over pure amino acid fertilizer and inorganic N fertilizer. All plants measured parameters (shoot and root biomass, leaf chlorophyll content and tissue N content) were highest in plant samples treated with commercial amino acid fertilizer as compared to pure amino acid and inorganic N fertilizer. It is therefore concluded that organic N may be of only limited consequence in high input agricultural systems.

Biography

Kawsar Ali completed his PhD at the age of 26 years. He got his PhD Degree from the university of Agriculture Peshawar Pakistan. He also worked with Prof. Davey Jones of Environment Center Wales (Bangor University) in his lab. He God Two Gold Medals in his academic career. He Published more than 60 Papers in well reputed impact factor journals around the globe. He is also working as Editor-in-Chief of International Journal of Agricultural and Environmental Research (www.ijaaer.com). Currently he is working on soil nuteints management and plant organic nitrogen uptake.

kawsar@aup.edu.pk

Notes: