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Editor

The Plant Family Brassicaceae

Biology and Physiological Responses to Environmental Stresses

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Contents

Brassicaceae Plants Response and Tolerance to Nutrient Deficiencies

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Abstract The plant family Brassicaceae commonly known as the cabbage family or mustard family has several agriculturally important crops. The major vegetable crops include cauliflower, cabbage, broccoli, kale, Brussels sprouts, turnip, radish, etc., and major oilseed crops are mustard and canola. Every essential nutrient has an inevitable role to play in a plant's growth and development; however some may be critical towards some crops such as in providing resistance to pests and diseases, or in terms of improving quality of the crop. Among macronutrients, S is one of them, very much essential to the plants of Brassicaceae family as it has got prominent effect on oilseed crops. Striking a perfect balance between N and S is important in growth and development of Brassicaceae plants. An understanding on the role of nutrients in the growth and development of plants belonging to Brassicaceae family is essential to identify their requirements for nutrients. This would provide an insight into identification of the symptoms exhibited as a result of nutrient deficiencies. The chapter deals with the nutrient deficiencies in Brassicaceae plants, and their responses and tolerance to stresses such as nutrient deficiencies. Hence, a better knowledge on these would aid in enhancing productivity of Brassicaceae plants by properly managing nutrient deficiencies and related abiotic stresses.

Keywords Brassicaceae · Critical concentration · Plant nutrition · Deficiencies · Symptoms

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