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| Titolo | The molecular and physiological basis of nutrient use efficiency in crops / / edited by Malcolm J. Hawkesford, Peter Barraclough |
| Pubbl/distr/stampa | Chichester, England : , : Wiley Blackwell, , 2011<br>©2011 |
| ISBN | 0-470-96068-X<br>1-283-33734-7<br>0-470-96067-1<br>9786613337344<br>0-470-96070-1 |
| Descrizione fisica | 1 online resource (1264 p.) |
| Disciplina | 631.8<br>631.811 |
| Soggetti | Crops - Nutrition<br>Crops - Nutrition - Molecular aspects<br>Crops - Nutrition - Physiology<br>Plant nutrients<br>Crop yields |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references at the end of each chapters and index. |
| Nota di contenuto | Cover; Title page; Copyright page; Preface; Contributors; Part I: Generic Aspects of Crop Nutrition; Chapter 1 An Overview of Nutrient Use Efficiency and Strategies for Crop Improvement; Introduction; Yield and fertilizers: the need for crop improvement; Nutrient use efficiency: critical processes, definitions, mechanisms, and targets for improvement; Strategies and approaches for the genetic improvement of NUE traits; Prospects; Acknowledgments; Chapter 2 Crop Root Systems and Nutrient Uptake from Soils; Introduction; Exploration of the soil; Accessing and capturing nutrients<br>Exploiting genotypic variation in root properties to improve nutrient captureManagement to optimize capture by root systems; Chapter 3 The Role of the Rhizosphere in Nutrient Use Efficiency in Crops; |

Introduction; Physicochemical properties of the rhizosphere; Nutrient use efficiency and availability in the rhizosphere as the result of interactions between roots and microorganisms; Nutrient uptake and root zone; Conclusion; Chapter 4 Optimizing Canopy Physiology Traits to Improve the Nutrient Utilization Efficiency of Crops; Rationale for improved nutrient economy of crops
Canopy traits for enhacing radiation capture and RUEIncreasing radiation interception per unit nutrient uptake; Canopy traits to increase photosynthetic capacity per unit nutrient uptake; Conclusions; Chapter 5 Senescence and Nutrient Remobilization in Crop Plants; Introduction; The senescence process; Degradation and transport; Regulation of senescence; Conclusions: the dilemma of senescence; Chapter 6 Effects of Nitrogen and Sulfur Nutrition on Grain Composition and Properties of Wheat and Related Cereals; Introduction; Effect of nitrogen on grain protein content
Effect of nitrogen on grain protein nutrition and qualityEffect of grain nitrogen on protein composition and functional properties of wheat; Effect of sulfur on grain protein composition and functional properties of wheat; Effects of nitrogen and sulfur on protein composition and malting quality of barley; Effects of nitrogen on -glucan in oats; Effect of nitrogen and sulfur nutrition on other cereal grain components; Nutritional control of storage protein gene expression; Conclusions; Acknowledgments; Part II: Nitrogen as a Key Driver of Production Chapter 7 Genetic Improvement of Nutrient Use Efficiency in WheatIntroduction; The genetic progress for NUE; NUE relation to GPC; Heterosis for NUE; Selection for increased NUE; Molecular approaches to improving NUE; Conclusions and perspectives; Chapter 8 The Molecular Genetics of Nitrogen Use Efficiency in Crops; Introduction; Nitrogen Metabolism and Its Management; Identification of Key Genes Using Reverse and Forward Genetics; Conclusions and Perspectives; Chapter 9 Biotechnological Approaches to Improving Nitrogen Use Efficiency in Plants: Alanine Aminotransferase as a Case Study Introduction

Sommario/riassunto

Efforts to increase efficient nutrient use by crops are of growing importance as the global demand for food, fibre and fuel increases and competition for resources intensifies. The Molecular and Physiological Basis of Nutrient Use Efficiency in Crops provides both a timely summary of the latest advances in the field as well as anticipating directions for future research.  The Molecular and Physiological Basis of Nutrient Use Efficiency in Crops bridges the gap between agronomic practice and molecular biology by linking underpinning molecular mechanisms to the physiological and

2. Record Nr. UNINA9910136630903321

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| Titolo | Gottfried Wilhelm Leibniz : De quadratura arithmetica circuli ellipseos et hyperbolae cujus corollarium est trigonometria sine tabulis / / herausgegeben von Eberhard Knobloch |
| Pubbl/distr/stampa | Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer Spektrum, , 2016 |
| ISBN | 3-662-52803-7 |
| Edizione | [1st ed. 2016.] |
| Descrizione fisica | 1 online resource (308 p.) |
| Collana | Klassische Texte der Wissenschaft, , 2522-865X |
| Disciplina | 510 |
| Soggetti | Mathematics<br>History<br>History of Mathematical Sciences |
| Lingua di pubblicazione | Tedesco |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references. |
| Nota di contenuto | Vorwort -- De quadratura arithmetica circuli ellipseos et hyperbolae cujus corollarium est trigonometria sine tabulis -- Entstehungs- und Überlieferungsgeschichte der Leibniz'schen Abhandlung über die arithmetische Quadratur der Kegelschnitte -- Die Arithmetik des Unendlichen -- Inhaltsanalyse -- Sternchennoten -- Glossar -- Textgrundlage -- Personenverzeichnis -- Literaturverzeichnis. |
| Sommario/riassunto | De quadratura arithmetica circuli ellipseos et hyperbolae Originaltext mit ausführlichen mathematischen sowie historischen Kommentaren von Eberhard Knobloch und aktualisierter Übersetzung von Otto Hamborg „De quadratura arithmetica circuli“ (1676) von Gottfried Wilhelm Leibniz ist eines der bedeutendsten Werke in der Analysis. Dieser Meilenstein der Mathematik- und Wissenschaftsgeschichte behandelt die arithmetische Kreisquadratur, also die Berechnung der Kreisfläche mittels einer konvergenten, unendlichen Reihe rationaler Zahlen, Zykloide, Paraboloide, Hyperboloide, Logarithmusfunktionen usf. Die Schrift legte die Grundlagen insbesondere für die Differential- und Integralrechnung, wie wir sie noch heute lernen und verwenden. Unter Berufung auf archimedische Strenge lehrt sie mit Hilfe der wohl definierten Begriffe „unendlich klein“ und „unendlich groß“ an Hand der Kurventheorie, wie mit dem Unendlichen in der Mathematik umzugehen |

ist. Kurven sind danach nichts anderes als Polygone mit unendlich vielen, unendlich kleinen Seiten. Die programmatischen Aussagen dieser Schrift sind grundlegend für die Philosophie und die Grundlagen der Mathematik. Der Autor Gottfried Wilhelm Leibniz (1646-1716) war der wohl größte Universalgelehrte des 17. und 18. Jahrhunderts. Seine Arbeit in der Mathematik hat diese Wissenschaft besonders stark beeinflusst und es gibt kaum ein mathematisches Themenfeld, das damals nicht von Leibnizens Schaffen geprägt wurde. Der Herausgeber Dr. Eberhard Knobloch, Professor (a. D.) für Geschichte der exakten Wissenschaften und der Technik an der Technischen Universität Berlin, ordentliches Mitglied und Projektleiter der beiden Arbeitsstellen der Leibniz-Edition der Berlin-Brandenburgischen Akademie der Wissenschaften.