

Bachelor of Science in Agriculture

We are pleased to provide a curated list of open educational resources for the Bachelor of Science in Agriculture programme. These are only for the purpose of additional readings and support classroom interactions.

Fundamentals of Horticulture

Michaels, T., Clark, M., Hoover, E., Irish, L., Smith, A., & Tepe, E. (2022). *The science of plants: Understanding plants and how they grow*. University of Minnesota Libraries Publishing. <https://open.lib.umn.edu/horticulture/>. License: CC BY-NC.

Fundamentals of Plant Biochemistry and Biotechnology

Suza, W. P., & Lee, D. (2021). *Genetics, agriculture, and biotechnology*. Iowa State University Digital Press. Open Textbook Library. <https://iastate.pressbooks.pub/genagbiotech/>. License: CC BY-NC-SA.

Fundamentals of Soil Science

Anderson, A. (2023). *Introduction to soil science*. Iowa State University Digital Press. OER Commons. <https://doi.org/10.31274/isudp.2022.123>.
<https://iastate.pressbooks.pub/introsoilscience/>. License: CC BY.

Moorberg, C. J., & Crouse, D. A. (2021). *Soils laboratory manual: K-State edition* (Version 2.1). New Prairie Press. Kansas State University Libraries.
<https://kstatelibraries.pressbooks.pub/soilslabmanual/>. License: CC BY.

Introduction to Forestry

Wells, D. (2022). *Introduction to forestry*. Tillamook Bay Community College. OER Commons. <https://oercommons.org/courses/introduction-to-forestry>. License: CC BY.

Botany

Ha, M., Morrow, M., & Algiers, K. (2021). *Introduction to botany*. ASCCC Open Educational Resources Initiative.
[https://bio.libretexts.org/Bookshelves/Botany/Botany_\(Ha_Morrow_and_Algiers\)/01%3A_A_Introduction_to_Botany](https://bio.libretexts.org/Bookshelves/Botany/Botany_(Ha_Morrow_and_Algiers)/01%3A_A_Introduction_to_Botany). License: CC BY-NC.

Biology

Clark, M. A., Choi, J., & Douglas, M. (2026). *Biology 2e*. OpenStax. Open Textbook Library. <https://open.umn.edu/opentextbooks/textbooks/biology-2e>. License: CC BY-NC-SA.

Fowler, S., Roush, R., & Wise, J. (2023). *Concepts of biology*. OpenStax. Open Textbook Library. <https://open.umn.edu/opentextbooks/textbooks/concepts-of-biology>. License: CC BY-NC-SA.

Clark, M. A., Choi, J., & Douglas, M. (2026). *Biology for science majors: Textbook for 18-year-old learners*. Universal Open Textbook Initiative.
<https://uotinitiative.org/en-concepts-of-biology-h5y0a>. License: CC BY.

Fundamentals of Genetics

Beavis, W., et al. (2023). *Crop genetics*. Iowa State University Digital Press. OER Commons.
<https://iastate.pressbooks.pub/cropgenetics/>. License: CC BY-NC.

LeClair, R. J. (2022). *Cell biology, genetics, and biochemistry for pre-clinical students*. Virginia Tech Publishing. Open Textbook Library.
<https://open.umn.edu/opentextbooks/textbooks/cell-biology-genetics-and-biochemistry-for-preclinical-students>. License: CC BY.

Zedalis, J., & Eggebrecht, J. (2026). *Biology for AP courses*. OpenStax.
<https://openstax.org/details/books/biology-ap-courses>. License: CC BY-NC-SA.

Soil and Water Conservation Engineering

Commonwealth of Learning. (n.d.). *Soil and water conservation: An overview* (Chapter 1). In *Resource management in rainfed drylands*.
https://openbooks.col.org/resourcemanagementrainfeddrylands/chapter_1-soil-and-water-conservation-an-overview.html. License: CC BY.

Moorberg, C. J. (2024). *Soil and water conservation laboratory manual*. New Prairie Press. OER Commons.
<https://oercommons.org/courses/soil-and-water-conservation-laboratory-manual>. License: CC BY-NC-SA.

Fundamentals of Agricultural Economics

Barkley, A. (2019). *The economics of food and agricultural markets* (2nd ed.). New Prairie Press. OER Commons.
<https://oercommons.org/courses/the-economics-of-food-and-agricultural-markets-2>. License: CC BY-NC-SA.

Rossmann, W. (n.d.). *Chapter 13.1 – Introduction to the agriculture economics*. In *Agribusiness Management 101*. Pennsylvania State University, Affordable Course Transformation.
<https://psu.pb.unizin.org/agbm101/chapter/introduction-to-the-agriculture-economics/>. License: CC BY.

Fundamentals of Agricultural Extension Education

Basavaprabhu, J. (n.d.). *Fundamentals of agricultural extension*. Commonwealth of Learning.
<https://openbooks.col.org/fundamentalsofagextn/index.html>. License: CC BY-NC-SA.

Fundamentals of Plant Breeding

Fehr, W. R., & Suza, W. P. (2024). *Plant breeding methods*. Iowa State University Digital Press.
<https://iastate.pressbooks.pub/plantbreedingmethods/>. License: CC BY-NC.

Singh, A. K., Mamo, T., Singh, A., Barb, J., Fei, S.-Z., Mahama, A. A., & Suza, W. (2023). *Crop improvement*. Iowa State University Digital Press.
<https://iastate.pressbooks.pub/cropimprovement/>. License: CC BY-NC.

Suza, W., & Lamkey, K. (Eds.). (2023). *Quantitative methods for plant breeding*. Iowa State University Digital Press.
<https://open.umn.edu/opentextbooks/textbooks/quantitative-methods-for-plant-breeding>.
License: CC BY-NC.

Agricultural Finance and Cooperation

George, B. (2026). *Agribusiness strategy, organization, and execution*. ISKME. OER Commons.
<https://oercommons.org/courseware/lesson/141892/overview>. License: CC BY-NC-SA.

Environmental Studies and Disaster Management

Harris, E. P. (2023). *Introduction to environmental sciences and sustainability*. University of West Florida. Pressbooks. <https://pressbooks.uwf.edu/envrioscience/>. License: CC BY-NC.

Statistical Methods

Illowsky, B., & Dean, S. (2018). *Introductory statistics*. OpenStax.
<https://openstax.org/details/books/introductory-statistics/>. License: CC BY.

Livestock and Poultry Management

Kumar, N. K. S., et al. (2023). *Practical animal nutrition for augmenting livestock and poultry productivity*. Commonwealth of Learning.
<https://openbooks.col.org/animalnutritionforlivestockandpoultryproductivity/index.html>.
License: CC BY-SA.

Crop Production Technology

Suza, W., & Lamkey, K. (Eds.). (2023). *Cultivar development*. Iowa State University Digital Press. DOI: <https://doi.org/10.31274/isudp.2023.144>.
<https://open.umn.edu/opentextbooks/textbooks/cultivar-development>. License: CC BY-NC.

Farming System & Sustainable Agriculture

Fisher, M. R. (2017). *Chapter 9: Conventional & sustainable agriculture*. In *Environmental biology*. Open Oregon Educational Resources.
<https://openoregon.pressbooks.pub/envirobiology/chapter/9-5-sustainable-agriculture/>.
License: CC BY.

Lam, W.-F., Law, W. W. Y., Yau, A., & Yiu, S. (2019). *Sustainable agriculture and its implementation in Hong Kong*. Centre for Civil Society and Governance, The University of Hong Kong. OER Commons. <https://oercommons.org/courses/sustainable-agriculture-and-its-implementation-in-hong-kong>. License: CC BY-NC-SA.

Agricultural Marketing Trade & Prices

Rossmann, W. (2024). *Agribusiness management 101*. Pennsylvania State University. OER Commons. <https://oercommons.org/courses/agribusiness-management-101>. License: CC BY.

Introductory Agro-meteorology & Climate Change

Lalic, B., Eitzinger, J., Dalla Marta, A., Orlandini, S., Firanj Sremac, A., & Pacher, B. (2018). *Agricultural meteorology and climatology*. Firenze University Press. <https://library.oapen.org/handle/20.500.12657/55452>. License: CC BY.

Principles of Integrated Pest and Disease Management

Bheemanna, M., & Patil, B. V. (n.d.). *Integrated pest management (IPM)*. Commonwealth of Learning. <https://openbooks.col.org/integratedpestmanagement/index.html>. License: CC BY-SA.

Sarma, B. K. (n.d.). *Detection, diagnosis and management of plant diseases*. Commonwealth of Learning. <https://openbooks.col.org/managementofplantdiseases/index.html>. License: CC BY-SA.

Crop Improvement

Suza, W., & Lamkey, K. (Eds.). (2023). *Crop Improvement*. Iowa State University Digital Press. Open Textbook Library. <https://open.umn.edu/opentextbooks/textbooks/crop-improvement>. License: CC BY-NC.

Kane, N. A., Foncéka, D., & Dalton, T. J. (Eds.). (2022). *Crop adaptation and improvement for drought-prone environments*. OER Commons. <https://oercommons.org/courses/crop-adaptation-and-improvement-for-drought-prone-environments>. License: CC BY-SA.

Entrepreneurship Development and Business Communication

Lucas, K., Rawlins, J. D., & Haugen, J. (2023). *Business communication: Five core competencies*. SAALCK. Open Textbook Library. <https://saalck.pressbooks.pub/bcomm/>. License: CC BY-NC-SA.

Soltanifar, M., Hughes, M., & Göcke, L. (Eds.). (2021). *Digital entrepreneurship: Impact on business and society*. Springer. Open Textbook Library.

<https://open.umn.edu/opentextbooks/textbooks/digital-entrepreneurship-impact-on-business-and-society>. License: CC BY.

Intellectual Property Rights

Kline, D., & Kappos, D. (2021). *Introduction to intellectual property*. OpenStax.

<https://open.umn.edu/opentextbooks/textbooks/introduction-to-intellectual-property>.

License: CC BY.

Rainfed Agriculture & Watershed Management

Sujith, G. M. (n.d.). *Resource management in rainfed drylands*. Commonwealth of Learning.

<https://openbooks.col.org/resourcemanagementrainfeddrylands/index.html>. License: CC

BY-SA.

Diseases of Field and Horticultural Crops and their Management

Sarma, B. K. (2023). *Integrated disease management*. Commonwealth of Learning.

<https://openbooks.col.org/integrateddiseasemanagement/index.html>. License: CC BY-SA.

Principles of Food Science and Nutrition

Callahan, A., Leonard, H., & Powell, T. (2022). *Nutrition: Science and everyday application*.

Lane Community College Pressbooks.

<https://openoregon.pressbooks.pub/nutritionscience2e/>. License: CC BY-NC.

Mushroom Cultivation Technology

Selvam, S. I. K., & Vinothini, A. (n.d.). *Hand book on mushroom cultivation*. New Century Book House (P) Ltd. Available through ISKME, OER Commons.

<https://oercommons.org/courseware/lesson/105018/overview>. License: CC BY.

Sunitha, S. (2020). *Mushroom cultivation technology*. ISKME. OER Commons.

<https://oercommons.org/courseware/lesson/72476>. License: CC BY-NC-SA.

Commercial Sericulture

Kishore, M. (2025). *Taxonomy of mulberry anatomy and sericulture*. ISKME. OER Commons.

<https://oercommons.org/courseware/lesson/138883/overview>. License: CC BY-NC-SA.