

References

Module 1A: A Plant Primer

Clayton, M. (2012, July 3). *Dissected lily flower* [Photograph]. Department of Botany, University of Wisconsin - Madison.

<http://botit.botany.wisc.edu/Resources/Botany/Angiosperms/Lilium%20Life%20Cycle/Dissected%20Lily%20Flower.jpg.html>

Evans, C. (2012, September 27). *Common blue violet (Viola sororia)* [Photograph]. Forestry Images. <https://www.forestryimages.org/browse/detail.cfm?imgnum=5476976>

Native Plant Trust. (2023). *Simple key for plant identification*. <https://gobotany.nativeplanttrust.org/simple/>

Noonan, J. (2017, January 11). *Here's what your favorite houseplants look like in the wild*. Bob Vila. <https://www.bobvila.com/slideshow/50773>

iNaturalist Network. (2023). *A community for naturalists*. <https://www.inaturalist.org/>

Module 1B: Cover Crops in the Rotation

Heller, N. (2019, June 19). *[Combine in Lexington]* [Photograph]. IPREFER.

Mature pennycress pods with seeds, Macomb, IL 2014 [Photograph]. (2019, October). IPREFER. <https://www.iprefercap.org/wp-content/uploads/2019/10/18.jpg>

Moore, S., Wells, M. S., Wilson, M., Gesch, R., & Baker, R. (2020, February 4). *Double cropping with pennycress*. University of Minnesota Extension. <https://blog-crop-news.extension.umn.edu/2020/02/double-cropping-with-pennycress.html>

Pennycress flower stalk, Macomb IL 2014 [Photograph]. (2019, October). IPREFER. <https://www.iprefercap.org/wp-content/uploads/2019/10/15.jpg>

Pennycress seed WIU [Photograph]. (2019, October). IPREFER. Retrieved April 28, 2023, from <https://www.iprefercap.org/wp-content/uploads/2019/10/12.jpg>.

Pennycress single flower growth chamber [Photograph]. (2019, October). IPREFER. <https://www.iprefercap.org/wp-content/uploads/2019/10/11.jpg>

Phippin, W. (2020, July). *Establishing pennycress in field* [Photograph]. IPREFER.

Module 1C: Planting & Harvesting Processes

21st Century Equipment. (2021, June 24). *How does a John Deere air seeder work*.

YouTube. <https://youtu.be/XvxMv6NTOFc>

CoverCress. (2023, April 23). *Agronomic Recommendations*. <https://www.covercress.com/agronomic-recommendations.cfm>

History.com Editors. (2018, August 21). *Neolithic revolution*. A&E Television Networks. <https://www.history.com/topics/pre-history/neolithic-revolution>

Illinois Agricultural Association. (2019, July 26). *How a combine works* [Video]. Vimeo. <https://vimeo.com/350413370>

Illinois Agricultural Association. (2020, June 28). *How a planter works* [Video]. Vimeo. <https://vimeo.com/433441222>

Illinois Farm Bureau Partners. (2020, August 12). *How do combines work?* <https://www.ilfbpartners.com/farm/how-do-combines-work/>

U.S. Bureau of Labor Statistics. (2019, September 4). *Occupational outlook handbook: Agricultural engineers*. <https://www.bls.gov/ooh/architecture-and-engineering/agricultural-engineers.htm>



Module 1D: Natural & Artificial Selection

Chen, M., Xuan, L., Wang, Z., Zhou, L., Li, Z., Du, X., Ali, E., Zhang, G., & Jiang, L. (2014). TRANSPARENT TESTA8 inhibits seed fatty acid accumulation by targeting several seed development regulators in *Arabidopsis*. *Plant Physiology*, 165(2), 905–916.

<https://doi.org/10.1104/pp.114.235507>

Cheng, F., Wu, J., Cai, C., Fu, L., Liang, J., Borm, T., Zhuang, M., Zhang, Y., Zhang, F., Bonnema, G., & Wang, X. (2016). Genome resequencing and comparative variome analysis in a *Brassica rapa* and *Brassica oleracea* collection. *Scientific Data*, 3(1), Article 160119. <https://doi.org/10.1038/sdata.2016.119>

Green, T. (2011). *Wild cabbage Little Orme* [Photograph]. <https://theresagreen.files.wordpress.com/2013/06/110928tgnr-wild-cabbage-little-orme.jpg>

Howard Hughes Medical Institute. (2019, April 4). *CRISPR-Cas9 mechanisms and applications*. <https://media.hhmi.org/biointeractive/click/CRISPR/>

Jinek, M., Chylinski, K., Fonfara, I., Hauer, M., Doudna, J. A., & Charpentier, E. (2012). A programmable dual-RNA-guided DNA endonuclease in adaptive bacterial immunity. *Science*, 337(6096), 816–821. <https://doi.org/10.1126/science.1225829>

Rager-Fuller, N. (2005, June 15). *Teosinte and modern corn comparison* [Illustration]. National Science Foundation. https://www.nsf.gov/news/mmg/media/images/corn-and-teosinte_f.jpg

Reynolds, E., & Hunt, K. (2020). *Nobel Prize in chemistry awarded to scientists who discovered CRISPR gene editing tool for 'rewriting the code of life'*. CNN.

<https://edition.cnn.com/2020/10/07/health/nobel-prize-2020-winner-chemistry-scni-intl/index.html>

SciShow. (2019, October 14). *Kale, cauliflower, and brussels sprouts are the same species*. YouTube. <https://youtu.be/JcVJDz1-8Lc>

Sedbrook, J. (2018). *Advancing field pennycress as a new oilseed biofuels feedstock that does not require new land commitments*. United States Department of Agriculture. <https://portal.nifa.usda.gov/web/crisprojectpages/1014980-advancing-field-pennycress-as-a-new-oilseed-biofuels-feedstock-that-does-not-require-new-land-commitments.html>

Module 1E: Gene Editing

D'Hont, A., Denoeud, F., Aury, J.-M. Baurens, F.-C., Carreel, F., Garsmeur, O., Noel, B., Bocs, S., Droc, G., Rouard, M., DaSilva, C., Jabbari, K., Cardi, C., Poulain, J., Souquet, M., Labadie, K., Jourda, C., Lenggellé, J., Rodier-Goud, M., ... Winckner, P. (2012). The banana (*Musa acuminata*) genome and the evolution of monocotyledonous plants. *Nature*, 488, 213–217. <https://doi.org/10.1038/nature11241>

Dale, J., James, A., Paul, J.-Y., Khanna, H., Smith, M., Peraza-Echeverria, S., Garcia-Bastidas, F., Kema, G., Waterhouse, P., Mengersen, K., & Harding, R. (with Dawson, S., & Kalka, G.). (2018, May). How can we save bananas from a deadly disease? *Environmental Science Journal for Teens*.

https://www.sciencejournalforkids.org/wp-content/uploads/2019/09/banana_article.pdf



Howard Hughes Medical Institute. (2019, April 4). *CRISPR-Cas9 mechanism & applications*. <https://media.hhmi.org/biointeractive/click/CRISPR/>

Hoyt, A. (2021). *Do people and bananas really share 50 percent of the same DNA?* <https://science.howstuffworks.com/life/genetic/people-bananas-share-dna.htm>

Module 2A: Reducing Soil Erosion

Al-Kaisi, M. (n.d.). *Soil erosion: An agricultural production challenge*. Iowa State University Extension and Outreach. Retrieved June 7, 2022, from <https://crops.extension.iastate.edu/encyclopedia/soil-erosion-agricultural-production-challenge>.

Bourke-White, M. (2020, January 20). *Plague upon the land: Scenes from an American dust bowl, 1954*. LIFE Magazine. <https://www.life.com/history/dust-bowl-photos-from-an-american-catastrophe/>

Finnel, H. H. (1954). The dust storms of 1954. *Scientific American*, 191(1), 25–29. <https://doi.org/10.1038/scientificamerican0754-25>

Muir, P.S. (2017, March 27). *Prairie erosion* [Photograph]. Flickr. <https://www.flickr.com/photos/usfwsmtnprairie/33555611541>

Peoria Academy of Science Geology Section. (2016). *Wind and water erosion lesson*. <https://pasgeology.org/pdf/2-ESS2-1%20Plan.pdf>

U.S. Department of Labor Employment and Training Administration. (2020). *Occupation profile*. CareerOneStop. <https://www.careeronestop.org/toolkit/careers/occupations/Occupation-profile.aspx?keyword=ConservationScientists&onetcode=19103100>

Module 2B: Pollinator Services

Cubins, J. A., Wells, M. S., Frels, K., Ott, M. A., Forcella, F., Johnson, G. A., Walia, M. K., Becker, R. L., & Gesch, R. W. (2019). Management of pennycress as a winter annual cash cover crop: A review. *Agronomy for Sustainable Development*, 39(5). <https://doi.org/10.1007/s13593-019-0592-0>

Daniels, D. (2020). *Pollinator profile birds*. California Academy of Sciences. https://www.calacademy.org/sites/default/files/assets/docs/pdf/297_pollinator_profiles_updated.pdf

Groeneveld, J. H., & Klein, A.-M. (2013). Pollination of two oil-producing plant species: Camelina (*Camelina sativa* L. Crantz) and pennycress (*Thlaspi arvense* L.) double-cropping in Germany. *GCB Bioenergy*, 6(3), 242–251. <https://doi.org/10.1111/gcbb.12122>

Koerner, T. (2014). *Big bluestem (Andropogon gerardii) in flower Sand Lake Wetland Management District 01*. Flickr. <https://www.flickr.com/photos/usfwsmtnprairie/14635029543>

Lee-Mader, E., Stine, A., Fowler, J., Hopwood, J., & Vaughan, M. (2014). *Cover cropping for pollinators and beneficial insects*. <https://www.sare.org/wp-content/uploads/Cover-Cropping-for-Pollinators-and-Beneficial-Insects.pdf>

McQuarrie, D. A. (2021, May 11). *The electromagnetic spectrum*. Chemistry LibreTexts. <https://chem.libretexts.org/@api/deki/files/411190/Figure10.03.jpg>

Verdonk, P. (2010). *Highbush or American cranberry bush* [Photograph]. Flickr. <https://www.flickr.com/photos/perverdonk/4631382903>



Module 2C: Cover Crop Products

Horton, R. (2016). *Agriculture in print: Soy ink*. 4-H. <https://4-h.org/wp-content/uploads/2016/02/Agriculture-in-Print.pdf>

McAlpine, J. (2020). *How big is a micron? Benchmark*. <https://www.bench.com/setting-the-benchmark/how-big-is-a-micron>

Tetra Pak. (2019). *Homogenizers*. <https://dairyprocessinghandbook.tetrapak.com/chapter/homogenizers>

Module 2D: Crop Product Supply Chains

Agricultural Marketing Resource Center. (2022, February). *Pennycress*. <https://www.agmrc.org/commodities-products/grains-oilseeds/pennycress>

@thedailygourmet. (2019). *Homemade sunflower butter*. AllRecipes. <https://www.allrecipes.com/recipe/270135/homemade-sunflower-butter/>

National Peanut Board. (n.d.). *25 fun facts about peanuts and peanut butter*. <https://www.nationalpeanutboard.org/news/fun-facts.htm>

United States Department of Agriculture. (2020, October 30). *Flour, soy, full-fat*. *FoodData Central*. <https://fdc.nal.usda.gov/fdc-app.html#/food-details/1104766/nutrients>

United States Department of Agriculture. (2019, April 1). *Seeds, sunflower seed kernels, dry roasted, with salt added*. *FoodData Central*. <https://fdc.nal.usda.gov/fdc-app.html#/food-details/325524/nutrients>

Zippia. (2022, September 9). *What is a logistics specialist?* <https://www.zippia.com/logistics-specialist-jobs/>



Career Connection: Technical Editor

Technical editors help scientists share their findings. They proofread, edit, and rewrite articles. They ensure accuracy and ease of reading. Some editors also create page layouts.

Most editors earn a bachelor’s degree in English, communications, or journalism. A bachelor's degree is not always required, though. Some editors gain training in an area of content focus like agriculture or biology.

