

Appendix

Conversion Tables for Common Weights and Measures

Common Measures	Conversion Amounts
1 pound	454 grams
2.2 pounds	1 kilogram
1 quart	.9464 liter
1 gram	15.43 grains
1 metric ton	2,205 pounds
1 inch	2.54 centimeters
1 centimeter	10 millimeters or .39 inches
1 meter	39.37 inches
1 acre	.406 hectare

Conversion Factors for English and Metric Measurements

To Convert the English	To the Metric Multiply by	To Convert Metric	Multiply by	To Get English
acres	0.4047	hectares	2.47	acres
acres	4047	square meters	0.000247	acres
BTUs	1055	joules	0.000948	BTUs
BTUs	0.0002928	kilowatt hours	3415.301	BTUs
BTU/hours	0.2931	watts	3.411805	BTU/hours
bushels	0.03524	cubic meters	28.37684	bushels
bushels	35.24	liters	0.028377	bushels
cubic feet	0.02832	cubic meters	35.31073	cubic feet
cubic feet	28.32	liters	0.035311	cubic feet
cubic inches	16.39	cubic centimeters	0.061013	cubic inches
cubic inches	0.01639	liters	61.01281	cubic inches
cubic yards	0.7646	cubic meters	1.307873	cubic yards
cubic yards	764.6	liters	0.001308	cubic yards
feet	30.48	centimeters	0.032808	feet
feet	0.3048	meters	3.28084	feet
feet/minute	0.508	centimeters/second	1.968504	feet/minute
feet/second	30.48	centimeters/second	0.032808	feet/second
gallons	3785	cubic centimeters	0.000264	gallons
gallons	0.003785	cubic meters	264.2008	gallons
gallons	3.785	liters	0.264201	gallons
gallons/minute	0.06308	liters/second	15.85289	gallons/minute
inches	2.54	centimeters	0.393701	inches
inches	0.0254	meters	39.37008	inches
miles	1.609	kilometers	0.621504	miles
miles per hour	26.82	meters/minute	0.037286	miles per hour
ounces	28.349	grams	0.035275	ounces
fluid ounces	0.02947	liters	33.93281	fluid ounces
liquid pints	0.4732	liters	2.113271	liquid pints
pounds	453.59	grams	0.002205	pounds
quarts	0.9463	liters	1.056747	quarts
square feet	0.0929	square meters	10.76426	square feet
square yards	0.8361	square meters	1.196029	square yards
tons	0.9078	tons	1.101564	tons
yards	0.0009144	kilometers	1093.613	yards
yards	0.9144	meters	1.093613	yards

National Agriculture, Food and Natural Resources (AFNR) Career Cluster Content Standards

National AFNR Content Standards, Revised 2015

Source: <https://www.ffa.org/thecouncil/afnr>

Purpose

The AFNR Career Cluster Content Standards provide state agricultural education leaders and educators with a high-quality, rigorous set of standards to guide what students should know and be able to do after completing a program of study in each of the AFNR career pathways.

State leaders and local educators are encouraged to use the standards as a guide for the development of well-planned curriculum and assessments for AFNR-related CTE programs. These standards are intended to help shape the design of all components of an agricultural education program including:

- Classroom and laboratory instruction.
- Career and Technical Student Organization (CTSO) experiences through organizations such as the National FFA Organization and the Post-Secondary Agriculture Students Organization (PAS).
- Work-based learning experiences such as Supervised Agricultural Experience (SAE) Programs and internships.

Process

The 2015 revision focused on ensuring that the content standards:

- Reflect essential and up-to-date knowledge and skills that students need to be ready for early-career success in a variety of AFNR disciplines.
- Provide a sound basis upon which to design AFNR related Career and Technical Education (CTE) courses.
- Provide a sound basis for developing end of course/program assessments to measure students' attainment of essential disciplinary knowledge and skills.
- The multi-stage review and revision process began in 2014 and was informed by input and guidance from more than 270 secondary and post-secondary educators, business, industry and state leaders in career and technical education

Alignments and Crosswalks

The National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation (NASDCTEc/NCTEF) have provided permission to use the Common Career and Technical Core (CCTC) Standards in support of this project. In addition, the standards have been reviewed to identify crosswalks to the following national academic standards:

- Common Core English Language Arts

- Common Core Mathematics
- Next generation Science Standards
- Green/Sustainability Knowledge and Skill Statements
- National Standards for Financial Literacy
- AFNR Documents AFNR Career Cluster Content Standards
- AFNR Career Cluster Content Standards CROSSWALKS
- AFNR Cluster Skills: Agribusiness Systems Career Pathway; Animal Systems Career Pathway; Biotechnology Systems Career Pathway; Career Ready Practices; Environmental Service Systems Career Pathway; Food Products and Processing Systems Career Pathway; Natural Resource Systems Career Pathway; Plant Systems Career Pathway and Power, Structural and Technical Systems Career Pathway

Availability

All of the National AFNR Content Standards and associated information are available online at the National FFA website or by following this link: <https://www.ffa.org/thecouncil/afnr>

Also, the complete document of the National AFNR Content Standard can be downloaded from the National Agricultural Institute's "TagMyDoc" site by following this URL: : <http://www.tagmydoc.com/AFNRSTDS>

Or by scanning this QR code:

