2026 FOREST PRODUCTS

Program Standards

CONTENT STANDARD 1.0: PROFESSIONAL ORGANIZATIONS AND LEADERSHIP	
Performance Standard 1.1: Student Leadership in Career Technical Student Organizations (CTSO) and Professional Associations	
1.1.1	Explore the role of professional organizations and/or associations in the Agricultural Forest Product Industry.
1.1.2	Define the values, roles, and opportunities provided through career technical student organizations.
1.1.3	Engage in career exploration and leadership development.
Performance Standard 1.2: Supervised Agricultural Experience	
1.2.1	Maintain SAE record books.
1.2.2	Describe the proficiency award areas related to the SAE program area.
1.2.3	Describe necessary steps to receive higher degrees in FFA.
CONTENT STANDARD 2.0: GENERAL INDUSTRY SAFETY	
Performance Standard 2.1: General Safety and Workplace Practices	
2.1.1	Describe requirements for PPE (e.g., glasses, shoes, gloves, hearing protection) and clothing on the job site.
2.1.2	Describe general shop safety rules (i.e., pass the safety test) and safety culture.
2.1.3	Operate equipment and tools according to manufacturer's guidelines and workplace safety standards.
2.1.4	Describe requirements for the lockout/tagout (LOTO) procedure.
2.1.5	Interpret safety markings and signage and their requirements.
2.1.6	Describe clothing requirements for safe operations.
2.1.7	Describe the emergency response plan.
2.1.8	Complete OSHA-10 training.
2.1.9	Describe Idaho minimum safety standards.
2.1.10	Complete logger first aid and safety certification class.
2.1.11	Interpret information contained on safety data sheets (SDS).
2.1.12	Identify hazards and hazard communication (i.e., signage) requirements.
2.1.13	Maintain a clean and organized work area.
Performance Standard 2.2: Forest Products Industry	
2.2.1	Describe key historical features of the Idaho lumber/forest products industry.
2.2.2	Identify career pathway segments within the Idaho lumber/forest products industry.
2.2.3	Describe the Idaho constitutional mandate to generate revenues from state endowment timberlands.
2.2.4	Evaluate benefits from sustainably managed forestland (e.g., wildlife, fish, recreation, water, energy, air, carbon).
2.2.5	Describe the importance of landowner management objectives in harvesting practices (e.g., timber, recreation, wildlife).
CONTENT STANDARD 3.0: FORESTRY	
Performance Standard 3.1: Silviculture, Forest Health, and Ecology	
3.1.1	Identify Idaho native tree species and invasives.
3.1.2	Identify pests (i.e., insects, disease) affecting forests.
3.1.3	Identify environmental factors that determine forest types.
3.1.4	Diagnose forest health issues.
3.1.5	Outline management options based on forest health diagnoses.

3.1.6	Describe the role of fire management in a forest ecosystem.
3.1.7	Describe the importance of stand density management.
Performance Standard 3.2: Best Management Practices and the Idaho Forest Practices Act	
3.2.1	Determine soil texture, types, and characteristics.
3.2.2	Describe soil conservation practices to protect soil productivity.
3.2.3	Describe the importance of riparian areas.
3.2.4	Define stream *bed, bank,* and *channel*.
3.2.5	Describe Class 1 and Class 2 streams.
3.2.6	Determine stream protection zones (SPZ).
3.2.7	Describe residual stocking and reforestation requirements (e.g., minimum stocking requirements, regeneration types, characteristics of quality leave trees).
Performance Standard 3.3: Timber Cruising	
3.3.1	Identify equipment used in timber cruising.
3.3.2	Measure tree height, using a clinometer.
3.3.3	Measure tree diameter, using a diameter tape.
3.3.4	Determine standing board feet, using a Scribner volume table.
3.3.5	Interpret basic map reading components (e.g., legend, scale, contours).
CONTENT STANDARD 4.0: LOGGING	
Performance Standard 4.1: Fire/Fuel Management	
4.1.1	Identify the components of the fire triangle.
4.1.2	Describe safety issues that arise when responding to a fire.
4.1.3	Describe fuel loading in relation to fire risks, fire behavior, and potential effects on the ecosystem, including recovery.
4.1.4	Describe fuel classes (i.e., 1-Hour, 10-Hour, 100-Hour, 1,000-Hour) based on size, moisture content, and burn characteristics.
Performance Standard 4.2: Timber Harvesting	
4.2.1	Describe current industry methods of timber harvesting (e.g., mechanical, line skidding/yarding, winch assist).
4.2.2	Describe slash management to meet Idaho State slash requirements.
4.2.3	Identify rules and regulations in loading and transport.
4.2.4	Describe the benefits of using onboard scales.
4.2.5	Interpret a site activity plan, using geo-reference data (e.g., compass, software applications, local industry-relevant technologies).
Performance Standard 4.3: Log Processing	
4.3.1	Identify defects in wood products.
4.3.2	Compare merchantable and non-merchantable wood products.
4.3.3	Identify equipment used in the processing of wood products.
4.3.4	Identify methods for processing wood and wood products.
Performance Standard 4.4: Equipment Maintenance and Operation	
4.4.1	Identify logging machines and equipment (e.g., log loader, feller buncher, processor, skidder) and the fuel types they use.
4.4.2	Maintain machines safely (i.e., zero state of energy practices, de-energizing).
4.4.3	Determine the high price and value of operational logging equipment and the cost of downtime.
4.4.4	Identify tools, fasteners (i.e., standard, metric) and equipment used in maintenance.
4.4.5	Describe power systems used by equipment (e.g., hydraulic, pneumatic, electrical, mechanical) and system components.
4.4.6	Access manufacturer repair manuals for specific repair and maintenance procedures.
4.4.7	Describe procedures for identifying fluid types and checking fluids for levels and quality.
4.4.8	Determine hydraulic hoses and fittings needed for maintenance and repair.

CONTENT STANDARD 5.0: MILLING

Performance Standard 5.1: Scaling

5.1.1 Identify species from logs.
5.1.2 Scale logs, identifying defects.
5.1.3 Identify tools, equipment, and machining used in scaling.
5.1.4 Calculate board footage.

Performance Standard 5.2: Quality Control and Optimization

5.2.1 Describe nominal versus actual board dimension measurements.
5.2.2 Describe lumber recovery in the milling process and the impact on profits.
5.2.3 Estimate rough lumber target size.
5.2.4 Identify lumber and manufacturing defects.
5.2.5 Describe various types of optimization technologies.

Performance Standard 5.3: Sawmilling Process and Lumber Manufacturing

5.3.1 Describe the debarking process.
5.3.2 Diagram the log primary breakdown to maximize yield.
5.3.3 Describe the resawing process.
5.3.4 Describe the purpose of edging.
5.3.5 Calculate end trimming as a value-based decision.
5.3.6 Describe the purpose of the sorting process.

Performance Standard 5.4: Lumber Drying Process

5.4.1 Describe the relationship of moisture content target to the drying process.
5.4.2 Describe variables (i.e., heat, humidity, air flow) and their effects on the lumber drying process.
5.4.3 Describe shrinkage in relation to the lumber drying process.
5.4.4 Determine proper stacking to preserve the quality of the product.

Performance Standard 5.5: Lumber Planing

5.5.1 Describe procedures for operating a planer and related equipment.
5.5.2 Identify the factors (e.g., feed speed, RPM, knife marks per inch, species) that affect the final quality of products.
5.5.3 Remove excess wood to achieve a final market target size.
5.5.4 Prepare finished product for market (e.g., trimming, sorting, packaging).

Performance Standard 5.6: Lumber Grading

5.6.1 Evaluate the value of finished boards by applying grading rules.
5.6.2 Determine value and end-use factors that affect grading.

Performance Standard 5.7: Product Market Opportunities

5.7.1 Identify primary wood products (e.g., lumber, poles, plywood, firewood).
5.7.2 Identify engineered wood products (e.g., CLT, BCIs, trusses, glue-laminated beams).
5.7.3 Identify the residual wood sources (e.g., bark, sawdust, wood chips, shavings) that create residual wood products (e.g., particle board, paper, wood pellets).

Performance Standard 5.8: Sawmill Equipment Maintenance and Operation

5.8.1 Describe the critical nature of preventive procedures (e.g., blade maintenance, lubrication systems, hydraulic equipment care, fasteners and structural integrity, electrical systems, scheduled maintenance logs).
5.8.2 Describe the critical nature of predictive procedures (e.g., expected life span/hours, cycle expectancy, historical data).
5.8.3 Describe the critical nature of corrective procedures (i.e., repair, replace).

IDCTE Document Control Information

Program Standard Revision: Forest Products

Date	Standard #	Original	Summary of Change	Revised By	Approved By