

8710.4050 TEACHERS OF AGRICULTURAL EDUCATION.

Subpart 1. **Scope of practice.** A teacher of agricultural education is authorized to provide to students in grades 5 through 12 instruction that is designed to develop the student's literacy in the food, fiber, and natural resources systems, the agricultural applications of the concepts, and the interdisciplinary nature of science; and to assist students to develop agricultural and agriculture-related career perspectives and workplace skills.

Subp. 2. **Licensure requirements.** A candidate for licensure to teach agricultural education to students in grades 5 through 12 shall:

A. hold a baccalaureate degree from a college or university that is regionally accredited by the association for the accreditation of colleges and secondary schools;

B. demonstrate the standards for effective practice for licensing of beginning teachers in part 8710.2000; and

C. show verification of completing a Board of Teaching preparation program approved under part 8700.7600 leading to the licensure of teachers of agricultural education in subpart 3.

Subp. 3. **Subject matter standard.** A candidate for licensure as a teacher of agricultural education must complete a preparation program under subpart 2, item C, that includes the candidate's demonstration of the knowledge and skills in items A to M.

A. A teacher of agricultural education must understand the anatomy, taxonomy, physiology, and ecology of plants and the application of the principles of genetics, propagation, selection, culture, and use of plants in agronomy, horticulture, or forestry.

B. A teacher of agricultural education must understand the anatomy and physiology of animals; the application of principles of genetics, breeding, selection, nutrition, care and health of animals for use in production, companionship, and recreation; and other contemporary issues that include ethics and waste management.

C. A teacher of agricultural education must understand the principles and practices of ecology and conservation in the areas of air, water, land, and wildlife flora and fauna; the principles and practices of soils and soil management; and the interactions of humans in natural and managed environments.

D. A teacher of agricultural education must understand the principles of economics; business and resource management; sales and marketing of commodities and services; and managerial accounting and bookkeeping procedures.

E. A teacher of agricultural education must understand the principles and practices of mechanical systems that include fluid, electrical, and fuel-powered units; the design, fabrication, construction, and use of agricultural structures, equipment, and

systems; alternative energy sources, including wind, solar, and geothermal energy; measuring tools and equipment; and product storage, water management, waste management, and materials handling.

F. A teacher of agricultural education must understand the selection and use of technology appropriate to the industry.

G. A teacher of agricultural education must understand the production, processing, preservation, packaging, storage, marketing, and distribution of dairy products, meats, fruits and vegetables, textiles, and wood products; and have knowledge of the laws, regulations, and issues affecting food and fiber quality and safety.

H. A teacher of agricultural education must understand the diversity of agriculture; population and cultural impact on world economics and trade; and productive capacity, productive potential, and comparative advantage.

I. A teacher of agricultural education must understand the principles and practices of leadership and communication that apply to organizations and community settings; role and structure of the student organization as an integral curricular component; and integration of the role and structure of the student organizations in developing the student through individual, cooperative, and collaborative activities that prepare the student for a role in the school, community, and workplace.

J. Through regular employment, internship, mentorship, job shadowing, or apprenticeship, a teacher of agricultural education must understand the function and operation of:

(1) businesses that supply goods and services to agriculture and agricultural-related enterprises; production units; and businesses that process, market, and distribute agricultural-related products; and

(2) diverse natural resources occupations, including recreational, conservation, and related occupations.

K. A teacher of agricultural education must understand the principles and practices of career planning and development that incorporates the role of career exploration in the process.

L. A teacher of agricultural education must demonstrate an understanding of the teaching of agriculture that integrates agriculture with pedagogy, students, learning, classroom management, and professional development to:

(1) understand and apply educational principles relevant to the physical, social, emotional, moral, and cognitive development of preadolescents and adolescents;

(2) understand and apply the research base and the best practices of middle level and high school education;

(3) develop curriculum goals and purposes based on the central concepts of agricultural education; and know how to apply instructional strategies and materials for achieving student understanding of agricultural education;

(4) understand the role and alignment of district, school, and department mission and goals in program planning;

(5) connect students' schooling experiences with everyday life, the workplace, and further educational opportunities;

(6) involve representatives of business, industry, and community organizations as active partners in creating educational opportunities;

(7) understand the role and purpose of cocurricular and extracurricular activities in the teaching and learning process; and

(8) apply the standards of effective practice in teaching students through a variety of early and ongoing experiences with middle level and high school students within a range of educational programming models.

M. A teacher of agricultural education must understand the content and methods for teaching reading including:

(1) knowledge of reading processes and instruction including:

(a) orthographic knowledge and morphological relationships within words;

(b) the relationship between word recognition and vocabulary knowledge, fluency, and comprehension in understanding text and content materials;

(c) the importance of direct and indirect vocabulary instruction that leads to enhanced general and domain-specific word knowledge; and

(d) the development of academic language and its impact on learning and school success;

(2) the ability to use a wide range of instructional practices, approaches, methods, and curriculum materials to support reading instruction, including:

(a) the appropriate applications of a variety of instructional frameworks that are effective in meeting the needs of readers of varying proficiency levels and linguistic backgrounds in secondary settings;

(b) the ability to scaffold instruction for students who experience comprehension difficulties;

(c) selection and implementation of a wide variety of before, during, and after reading comprehension strategies that develop reading and metacognitive abilities;

(d) the ability to develop and implement effective vocabulary strategies that help students understand words, including domain-specific content words;

(e) the ability to identify instructional practices, approaches, and methods and match materials, print and digital, to the cognitive levels of all readers, guided by an evidence-based rationale, which support the developmental, cultural, and linguistic differences of readers; and

(f) the complexities involved in the development of academic language and the impact of that development in school success; and

(3) the ability to use a wide range of instructional practices, approaches, methods, and curriculum materials to support reading and writing instruction including:

(a) selection and implementation of a wide variety of before, during, and after reading comprehension strategies that develop reading and metacognitive abilities;

(b) the ability to develop and implement effective vocabulary strategies that help students understand words including domain-specific content words; and

(c) the ability to identify instructional practices, approaches, and methods and match materials, print and digital, to the cognitive levels of all readers, guided by an evidence-based rationale, which support the developmental, cultural, and linguistic differences of readers.

Subp. 4. **Continuing license.** A continuing license shall be issued and renewed according to the rules of the Board of Teaching governing continuing licensure.

Subp. 5. **Effective date.** The requirements in this part for licensure as a teacher of agricultural education are effective on September 1, 2010, and thereafter.

Statutory Authority: *MS s 122A.09; 122A.18*

History: *23 SR 1928; 34 SR 595*

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