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Developing a youth curriculum to teach home food processing to youth

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Introduction:

Home food processing and preservation provides a platform for hands-on instruction in food science that fulfills established career and STEM initiatives in schools as well as enrichment for community youth programs. An original *PUT IT UP! Food Preservation for Youth* curriculum was developed to address the science and methods in acid and low-acid food canning, pickling, freezing, making jam and drying preservation of foods. The curriculum is matched to Next Generation Science Standards™ and Common Core State Standards© in Math; it is presented in a format familiar to Cooperative Extension and other community youth organization leaders.

Method:

Development of the curriculum was informed by input into basic constructs and format from a focus group of 14 Cooperative Extension educators from across the U.S. followed by pilot testing and evaluation of an original curriculum. The package contains a leader's guide and 6 units with different food preservation methods. A total of 174 youth aged 6 to 18 years old participated in 24 different programs led by 13 different community educators. Participants completed a pre-test, post-test, and evaluation with each lesson. This formative assessment guided refinement as well as additions to teacher guidance.

Results:

Pilot programming demonstrated youth increased knowledge about pH, food acidity, and temperature as they relate to food preservation. Behavior and attitudes regarding the importance of preserving food as well as the science of food and liking of science were also evaluated and showed improvements. *PUT IT UP! Food Preservation for Youth* can engage youth in food science in an interactive manner. The developmental research and implementation processes resulted in an available, flexible and science-based youth curriculum suitable for various age groups and educational settings.

Significance:

School teachers as well as community youth group leaders must engage students in career pathway as well as STEM initiatives and are often challenged to identify interactive, easily implemented curricula. Food processing and preservation methods offer abundant opportunities to engage youth in educational yet practical science-based learning. This curriculum connects them to hands-on manipulation of food and applications of sciences while increasing knowledge about our food supply and its value to health.

Industry Relevant Text for use with Media:

An original youth curriculum for teaching home food processing and preservation methods was developed and pilot-tested with youth aged 6 to 18 years in various community settings. The curriculum teaches various food science, basic science and math concepts related to school STEM and career initiatives. This curriculum is a means to introduce the science of food and aspects of our food production and preservation systems to young people in both school and community educational settings.