How Cooking Methods Cause Vitamin Loss

BROOKINGS – Cooking methods can limit vitamin intake thus impacting the health value of certain foods essential to human metabolism.

the region

"Cooking foods can reduce the vitamin content because some vitamins are susceptible to loss from heat, air, water, and light," said Biyi Chen, SDSU Graduate Student in Nutrition and Exercise Science.

Chen explained that currently, 13 vitamins are found and divided into two categories: four fat-soluble which are A, D, E, and K; and nine water-soluble, eight of which are B vitamins and vitamin C.

"Water-soluble vitamins, especially most of the B vitamins and vitamin C, leach into cooking water; as well as fat-soluble vitamins; including vitamins A, D and E, leach into cooking oils," Chen said. "Only two vitamins, K and B-3, are stable enough to hold up well during cooking."

Cooking methods that use only small amounts of fat or water and don't require long heat exposure preserve nutrients best, Chen explained. "The type of food preparation influences the loss of vitamins. Choose the best cooking methods to help retain the vitamins of food," Chen said.

MOIST-HEAT COOKING METHODS

* Boiling and poaching will cause a great loss of water-soluble vitamins, such as folate, vitamin B1 and C. so Chen recommends steaming and microwave cooking as good methods to minimize the loss of vitamins.

"Steam can transfer more heat at the same temperature, so the food cooks faster

PIERRE – Gov. Dennis

Daugaard continues to focus

on making South Dakota a leader in employing citizens

with disabilities, proclaim-

ing October 2015 as Disabil-

ity Employment Awareness

the observation are planned

across the state throughout

October.

Month. Events acknowledging

Disability-Employment

Awareness Begins Oct. 1

effort."

and fewer nutrients are lost," Chen said. "Stewing/braising can also help with preserving the vitamins, but heat-sensitive vitamins are partially destroyed."

Chen added that pressure cooking is comparable with steaming and stewing.

DRY-HEAT COOKING METHODS

With dry-heat cooking methods, heat can be transferred through air or fat. "This method is suitable for foods rich in proteins and where a crust is desired; however, heat-sensitive vitamins are partially destroyed during roasting, grilling, and baking," Chen said.

FRY-COOKING METHODS

Chen said that correct frying of vegetables preserves vitamins better than boiling or steaming. "Frying does increase the amount of fat and energy," Chen said.

The advantages of frycooking include: no loss of water-soluble vitamins, only a small amount of heatsensitive vitamins destroyed, and possible increasing of vitamin E based on oil used for cooking.

Tips to help retain the vitamins of food during cooking include:

Wash vegetables whole and before peeling under running water.

Peel thinly or cook with skin on, and cut into large pieces.

* Raw vegetables and fruit salads: add a little lemon juice or vinegar to slow down vitamin C loss.

* Use the smallest amount of water necessary, and cook with the lid on.

Serve immediately. Keeping food warm causes a vitamin C loss of 4-17 percent in one hour and 7-34 percent in two hours.

age South Dakotans to take a

look at AbilityForHire.com to learn more about how South

Dakota is contributing to this

This statewide observa-

tional Disability Employment

Awareness Month (NDEAM),

a national awareness cam-

tion coincides with Na-

3 Properties Listed On National Register Of Historic Places

PIERRE - Three South Dakota properties were recently added to the National Register of Historic Places, according to the South Dakota State Historical Society. The listed properties are the First National Bank, Freeman; Harmony Friends Church, Wessington Springs vicinity; and Terrace Park and Japanese Gardens, Sioux Falls.

The National Register is the official federal list of properties identified as important in American history, architecture, archaeology, engineering and culture. The State Historic Preservation Office of the State Historical Society at the Cultural Heritage Center in Pierre works in conjunction with the National Park Service, which oversees the National Register program, to list the properties.

South Dakota's history is rich in American Indian culture, pioneer life and change," said Jay D. Vogt, state historic preservation officer and director of the State Historical Society. "Properties listed on the National history. And when properties get listed, it shows that their owners take pride in their role in preserving that culture, heritage and history."

Buildings, sites, structures and objects at least 50 years old possess-

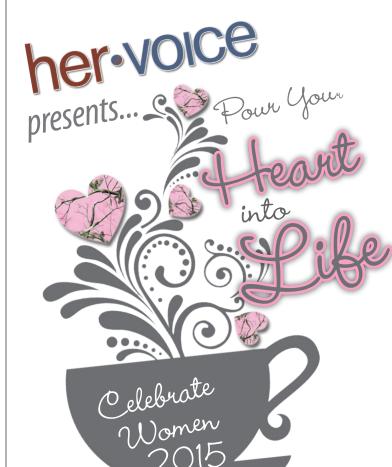
ing historical significance may qualify for the National Register, according to Vogt. Properties must also maintain their historic location, design, materials and association. Listing on the National Register does not place any limitations on private property owners by the federal government.

The First National Bank in Freeman was organized in 1902 with this building constructed in 1906. It is listed on the National Register for its local significance in the area of commerce as an example of small-town banking industry in South Dakota. The bank remained open to serve its town and surrounding agricultural community through the Great War boom, the subsequent agricultural recession, the Great Depression and a bank robbery. The corner location and design of the two-story brick building are indicative of the status the bank had in the community.

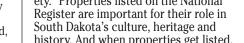
The Harmony Friends Church was built in 1913 and is currently known to be the last church of the Society of Friends standing in its original location. The church is listed on the National Register due to its historical significance at a statewide level in the area of religion. Although the Society of Friends never had a large membership in South Dakota, the Friends that homesteaded in the late 19th century and established churches show the extension of the society into western territories. Just north of the church is a claim-era timber grove and a small lunch stand, which hosted years of community events, ball games, races and Old Settlers' Association picnics.

Terrace Park was established by the city of Sioux Falls in 1916. Through the 1930s, improvements to the park included the construction of the Japanese Gardens. The gardens filled the park with long earthen terraces, Sioux quartzite stone steps and walls, and an outdoor concert stage. As Sioux Falls grew steadily in the early 20th century, the city built up a park system full of aesthetic attractions, active recreational spaces, and entertainment venues to improve the quality of life for its residents. The park and gardens are listed on the National Register for their local significance in the areas of entertainment/recreation and social history.

For more information on the preservation programs, contact the State Historic Preservation Office at the Cultural Heritage Center, 900 Governors Drive, Pierre, SD 57501-2217; telephone (605) 773-3458 or website history. sd.gov/Preservation, click on National Register of Historic Places in the right



National Register or other historic column. with Event Speaker Julie Clark



The executive proclamation advances the Governor's goal of making South Dakota an employment-first state, one in which employment is the first priority and preferred outcome for all citizens with disabilities.

"South Dakota is joining a nationwide campaign to raise awareness about disability employment issues and to celebrate the contributions of America's workers with disabilities." said state Department of Human Services (DHS) Secretary Gloria Pearson. "We encour-

October. The 2015 theme is "My Disability is One Part of Who I Am." NDEAM history traces back to 1945, when Congress enacted a law declaring the first week in October "National Employ the Physically Handicapped Week." In 1962, the word "physically" was removed to acknowledge the employment needs and contributions of individuals with all types of disabilities. In 1988, Congress expanded the observation to a month and changed it to its current name.

DRIVER EXAM SCHEDULE

Here is the monthly schedule for area driver's license examinations in the area. File application at least one hour in advance of scheduled closing hours if you wish to complete examination on the same day. For more information, call (800) 952-3696 or visit www.state.sd.us/dps/dl • Armour — 9 a.m.-3:30 p.m.,

second and third Thursday, Courthouse, 706 Braddock. • Center/Knox Co. (Neb.)

8:30 a.m.-4 p.m. every Friday (closed noon-1 p.m.). • Elk Point — 8:30 a.m.-4:30

p.m., first and third Wednesday, Courthouse basement. • Hartington/Cedar Co. (Neb.)

8:30 a.m.-4 p.m. every Thursday (closed noon-1 p.m.). • North Sioux City -

- 8:45 a.m.-4:30 p.m.; second, fourth and fifth Wednesday, Community Center.

• Parker — 8 a.m.-5 p.m., first Wednesday, Courthouse basement.

• Vermillion — 7 a.m.-5 p.m. Thursdays and Fridays, Court-house, 211 W. Main.

• Wagner — 9 a.m.-3:30 p.m., first and fourth Thursday, City Hall, 60 Main Ave. SE

Yankton — 7 a.m.-5:30 p.m. Tuesdays, Thursdays and Fridays; 3113 Spruce, Ste. 109 (Kanner Bldg).

Federal regulations require anyone applying for a new, renewal or duplicate driver license or identification card to provide the documents listed below (pho-

• ONE of the following to prove identity, date of birth, and lawful status: Certified U.S. birth certificate issued by county or state (no hospital birth-certificates); valid unexpired U.S. passport; Certifi-cate of Naturalization; Certificate of Citizenship; valid unexpired permanent resident card; valid unexpired employment authorization document; foreign passport with valid unexpired U.S. Visa with I-94.

NOTE: A driver license with a gold star in the upper right-hand corner also qualifies as a federally compliant card for identification.

If your name is different than the name on your identity docu-ment, you will need to bring additional proof of your legal name. Acceptable documents for proof of legal name change are a certified marriage certificate (issued by a state vital records agency), a certified adoption document, or a certified court order authorizing a name change (such as a divorce decree). If you have had multiple marriages, you will need to bring similar documents providing legal proof of each name change. The examiners must be able to trace from your birth name to your current name.

· ONE document to prove your Social Security number: So-cial Security card, W-2 Form, SSA 1099 Form, Non-SSA 1099 Form, pay stub (must include name and Social Security number). The regulations do not allow personnel to accept any other document as proof of Social Security number.

• TWO documents to prove your residential address. A par-ent's proof of address is acceptable for a minor child. Bring two of the documents listed here (each must contain your current address): Utility bill, credit card statement, pay stub or earnings statement, rent receipt, phone bill, transcript or report card from accredited school, bank statement, mortgage document, tax document, homeowners/renter's insurance policy. Other items will be reviewed by licensing personnel. PO Box addresses are acceptable in areas not assigned street or 911 addresses. In South Dakota, if you are unable to provide proof of residency, visit www.dps.sd.gov or call 1-800-952-3696.

NOTE: In South Dakota, application must be submitted at least one hour in advance of scheduled closing time. No drive tests will be given from 11:30 a.m.-1:30 p.m.

Saturday FREE tober 17th, 2 Wine NFAA Easton Archery Comp Tasting

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