

A History of Weights and Measures



Dan Bernaciak
Deputy Sealer of
Weights & Measures

Imagine buying rope and the amount you request is measured out by a salesperson using the length of their feet or arms. Imagine buying coffee and having the weight of your purchase determined by

The use of some type of measuring or weighing goods is as old as man himself. At first, it was the length of an arm or foot that established a unit of measure or a kernel of grain that established a unit of weight. However, the obvious fact that

not all feet were the same size, nor are all kernels of grain the same weight, led to the desire to standardize units of measuring and weighing and ultimately to the formation of Weights and Measures.

the amount of grain that leveled out the balance. If this were the case, you might only want to shop where people had big feet, long arms and dry grain! Stores on the other hand, might only want to hire sales associates who had small feet and short arms. Fortunately, we have a system that has standardized the units of weight and measure so the size of a person's feet does not determine their career path and we can have confidence that we are receiving the correct amount of product.



the amount of grain that leveled out the balance. If this were the case, you might only want to shop where people had big feet, long arms and dry grain! Stores on the other hand, might only want to hire sales associates who had small feet and short arms. Fortunately, we have a system that has standardized the units of weight and measure so the size of a person's feet does not determine their career path and we can have confidence that we are receiving the correct amount of product.

Although many people have never heard of Weights and Measures, we are not “new kids on the block”. The founding fathers in the formation of the Constitution of the United States, gave Congress the power to “fix the Standard of Weights and Measures.” President George Washington during his January 1790 message to

“Although many people have not heard of Weights and Measures, we are not ‘new kids on the block’. The founding fathers gave the Congress power to fix the Standards of Weights and Measures.”

Congress said, “Uniformity in currency, weights and measures of the United States, is an object of great importance, and will, I am persuaded, be duly attended to.” In a report to the United States Congress in 1821, then Secretary of State, John Quincy Adams stated, “Weights and Measures may be ranked among the neces-

saries of life to every individual of human society. They enter into the economical arrangements and daily concerns of every family. They are necessary to every occupation of human industry...”

As important as the founding fathers of our country felt weights and measures to be, it was not until June 14, 1836, that the United States Congress adopted a uniform standard of weights and measures. This was the result of the work of Ferdinand Hassler who had shown that the existing standards of weight and measures varied to the extent that

Continued—Page 4

New Law Update — Automatic Checkout Requirement

Effective January 1, 2007, businesses must comply with a law passed in 2002 concerning customer display and indicator requirements for automatic checkout systems. The law states that anyone using an automatic checkout system, to sell goods or services to consumers shall ensure that the price of each good or service to be paid by the consumer is conspicuously displayed to the consumer at the time that the price is interpreted by the system. In addition, all price reductions, surcharges, taxes, and the total amount for each transaction also must be displayed for the consumer at

least once before the consumer is required to pay for the goods or services. The law also requires that the checkout system customer indicator be positioned, and the prices and amounts displayed are of a size and form, easily viewable from a typical and reasonable customer position at each checkout location.

For the purposes of this law, an automatic checkout system is defined as:

A computer or any electronic system used to interpret the universal bar code or any other



code that is on an item offered for sale to determine the price of the item being purchased regardless of whether the code entry is accomplished manually by a human or automatically by a machine.

The Business and Professions Code Section 13300 may be viewed at:
www.cdfa.ca.gov/dms/pdfs/BP2006.pdf

Export News



Kamal Bagri
Deputy Ag
Commissioner

Wheat

The first commercial shipment of wheat to Mexico in 10 years left from Woodland in May 2006.

In 1996, Mexico placed a ban on all California wheat exports after Karnal Bunt fungus was found in limited areas of the desert southwest. Following a lengthy period of negotiation, the ban was lifted in 2005, through the efforts of the Mexican government and a public/private partnership

consisting of the California Department of Food and Agriculture, the U.S. Department of Agriculture, a team of California state legislators, members of the California Congressional Delegation, national wheat organizations, the California Wheat Commission, and the California Association of Wheat Growers. Mexico imports 3.6 million metric tons of wheat a year, 80 percent of which comes from the U.S. With the California ban lifted, the state will again have the opportunity to offer wheat to this large export market.

Stanislaus County produces over a million bushels of



wheat every year and is required to participate in a National Survey for Karnal Bunt.

Stone Fruit Exports to Mexico and British Columbia

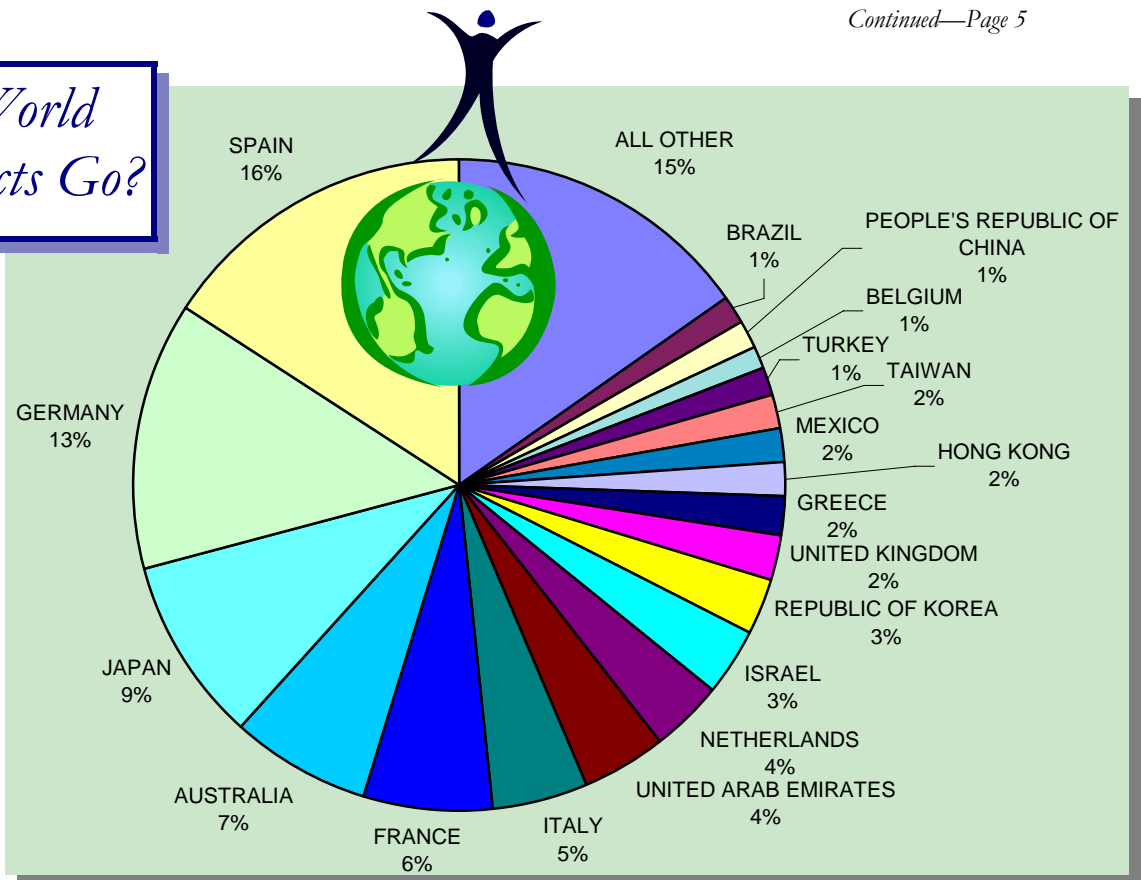
The Mexican borders opened to receive California stone fruit exports in May of this year. Stanislaus County is one of the five counties who export stone fruit to Mexico. Other counties include Fresno, Kings, Kern and Tulare. Farmers export plum, peaches, nectarines and apricots under this program.

In Stanislaus County, farmers ship apricots to Mexico and British Columbia. A total of 756 acres of apricots and nine growers are registered under the “Stone Fruit to Mexico” program for this year. Most of these shipments are packed in our county and inspected before shipping. The Stone Fruit Program to Mexico is a labor-intensive program. Apricot growers spend a lot of money to comply with the rules and regulation of Mexico and British Columbia. They make sure that all the orchards in this program are trapped for Oriental Fruit

Continued—Page 5

Where in the World Do Our Products Go?

What is the Number One Stanislaus County commodity exported internationally? Almonds—over 106 million pounds, accounting for a whopping 86% of our commodity exports—were shipped this past year to foreign destinations. Other top exports include seed, dried beans and lentils. The chart to the right includes countries of destination for all exported commodities from Stanislaus County.



Protecting Agriculture from the Glassy-Winged Sharpshooter



Battle of the Bug

The Glassy-Winged Sharpshooter (left); a menacing threat to agriculture.

Each year the Agricultural Commissioner's office has a team of agricultural assistants working hard to keep a menacing pest, the glassy-winged sharpshooter, from establishing itself in Stanislaus County. Incoming plant shipments from infested areas in California are inspected for the insect and the insect's egg masses. Also, glassy-winged sharpshooter traps are placed throughout our county and are routinely inspected by specially trained ag assistants.

The glassy-winged sharpshooter is a vector that spreads a bacterium called *Xylella fastidiosa*, which causes Pierce's disease in grapevines. This bacterium causes blockage of the water conducting system, which eventually leads to the death of the plant. There are no known treatments for this disease. This bacterium can also cause almond leaf scorch, alfalfa dwarf, citrus variegated chlorosis, oleander leaf scorch, and other plant diseases of concern.

This particular leafhopper is large, about a half inch long, and dark in color. On very close observation there is a stained glass appearance to its wings. It feeds on a wide variety of ornamental and crop plants.

There are ten people in the glassy-winged sharpshooter program, three serving as trappers and the remaining crew mainly work on plant inspec-

tions. Plant shipments coming into our county from an infested county must be inspected before being offered for sale or planted. Our trappers are trained on where to place traps for the highest risk factors and how to place the traps for maximum efficiency.

If you find an insect you suspect to be the glassy-winged sharpshooter please give us a call at (209) 525-4730.

Ag Assistants check incoming plants to be used in landscaping.



Weights and Measures History

(Continued from Page 1)

Louis McLane, Secretary of the Treasury stated these inconsistencies were "a serious evil". Ferdinand Hassler went on to oversee the construction of the Standards of weights and measures that were eventually distributed to every State.

Upon becoming a State, California recognized the necessity of having standardized units of weight and measure. As part of its first session, on March 30, 1850, the California Legislature passed Chapter 53, which established Standards of Weights and Measures.

Today, the County Sealers of Weights and Measures are responsible for ensuring the accuracy of all commercial devices throughout California. This is accomplished by utilizing County

Standards that have been verified by the State of California to be accurate. All 50 States' Standards are compared against (have traceability to) the National Standards maintained by the National Institute of Standards and Technology in Maryland. The United States National Standards have traceability to the International Standards maintained by the International Bureau of Weights and Measures (BIPM - the Bureau International de Poids et Mesures) located in Sèvres France just outside Paris.

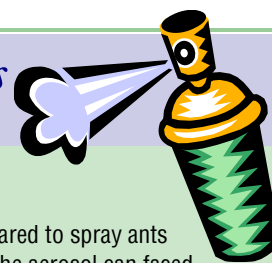
This system not only ensures stan-

dardized units of weight and measure throughout the United States, fulfilling the dream of our founding fathers, it also ensures standardized units of weight and measure throughout the world. In addition, this system helps maintain equity in the marketplace, the ultimate goal of Weights and Measures.

Today the standard of mass—the International Prototype Kilogram—is the only remaining physical artifact (see photo), and is kept in a vault in Sèvres, France. The standards for the other six base units: length, time, electrical current, temperature, amount of substance, and luminous intensity, are now defined by fundamental constants of physics.



The Top Ten Pesticide Blunders Provide Cautionary Tales



Kevin Gonzalves
Deputy Agricultural
Commissioner

The California Department of Pesticide Regulation (CDPR) recently announced its third annual “Top 10 Pesticide Blunders.”

With the best interests of consumer and worker safety in mind, CDPR also recapped leading cases from the two previous years:

“As a 34-year-old Yolo County motorist moved her driver’s seat backward, the motion caused an insect fogger stashed underneath the seat to discharge...”

“A 23-year-old San Joaquin County man spotted a fly on his beer can, sprayed an insecticide on the can, and later, as he drank from the can, his lips began to tingle...”

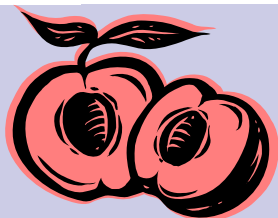
These and the new list of blunders graphically demonstrate what NOT to do as you undertake household and gardening chores or other work with pesticides this spring. DPR health and safety scientists say a few simple precautions can prevent most pesticide accidents:

- Look for the least-toxic solution to pest problems, indoors and out.
- Read all pesticide label directions closely and follow directions to the letter.
- Keep pesticides in their original containers and out of children’s reach.

Many home pesticide accidents occur in kitchens and bathrooms, although they may go unreported. Almost half of households with children under age five have at least one pesticide stored within a child’s reach, according to national health surveys. Children are especially vulnerable when adults put pesticides into drinking containers, such as soda or juice bottles. Consumer pesticide products with colorful packaging and attractive scents may also attract children.

Export News (Continued from Page 3)

Moth. These traps have to be inspected and monitored regularly. The orchards have to be sprayed several times and farmers have to keep a record of these activities. When the shipment is ready to be exported, staff of the Agricultural Commissioner’s Office has to inspect and make sure that the fruit is free of any quaran-



tine pests by cutting it. After that, shipment is sealed. The seal cannot be broken until the shipment reaches the border station of the foreign country.

This year, the program is a big challenge to the growers due to reduced crop and a Peach Fruit Fly find in Fresno County.

1. As a San Diego County man prepared to spray ants with insecticide, he failed to notice the aerosol can faced the wrong way. He sprayed himself in the face, developed respiratory symptoms, and sought medical attention the next morning.

2. In Los Angeles County, a woman sprayed an aerosol insecticide under her kitchen sink to kill roaches. To get a better shot, she stuck her head inside the cabinet and then inhaled fumes. Her lungs began to burn and she sought medical attention.

3. An Orange County resident set off two “bug bombs” and left his house. He returned 90 minutes later, opened the windows, and remained inside. He developed heart symptoms and went to a hospital, where he suffered a stroke.

4. Another Los Angeles resident who sprayed her kitchen to kill flies drank from a glass of water that sat uncovered in the same room while she sprayed. A runny nose, headache, and chest tightness prompted her to seek medical aid.

5. In Orange County, a dog owner with asthma hugged her one-pound puppy shortly after it received a liquid flea control treatment from the woman’s veterinarian. It was later determined that the puppy was treated with a dosage meant for larger dogs. The owner experienced shortness of breath, blurry vision, and other symptoms. The puppy also apparently suffered ill effects.

6. A San Diego receptionist sprayed an insecticide around doors in her office for spiders. She got the pesticide on her hands so she rubbed them together. She later rubbed her eyes. Her hands and eyes began to itch, so she sought medical attention.

7. A San Bernardino truck driver prepared to disinfect his tires with a hose-mounted sprayer. When he pulled on the hose, it knocked the attached disinfectant bottle off. The bottle hit the ground and disinfectant splashed into his face and eyes.

8. A Los Angeles County worker prepared to mop a kitchen floor when she noticed she was almost out of the usual cleaning product. She mixed bleach with the cleaning product, which created fumes. She developed respiratory symptoms and sought medical attention.

9. At a San Bernardino County fast-food outlet, a customer at the drive-through window bought iced tea and noticed a foul taste, followed by a burning throat and nasal passages. The cup apparently contained some sanitizer from an improperly rinsed tea machine. (Similar case reported in Los Angeles County.)

10. A Marin County lifeguard mistakenly added muriatic acid to a chlorine tank. He inhaled the resulting fumes and developed symptoms. His mother saw him coughing and took him for medical aid.

Source: California Department of Pesticide Regulation

www.cdpr.ca.gov

Stanislaus County
Department of Agriculture and
Weights and Measures

Stanislaus County Board of Supervisors

Bill O'Brien, District 1 Jeff Grover, District 3
Tom Mayfield, District 2 Ray Simon, District 4
Jim De Martini, District 5

3800 Cornucopia Way Suite B
Modesto CA 95358

Phone: 209-525-4730

Fax: 209-525-4790

Email: agcom50@mail.co.stanislaus.ca.us

Publication Design/Coordination: Cynthia Darmstandler
cynthiad@mail.co.stanislaus.ca.us

The staff of the Department of Agriculture and Weights & Measures are always ready and willing to assist you. If you have any questions or comments, please contact our office at (209) 525-4730.

WE'RE ON THE WEB!

WWW.STANAG.ORG

Our Mission:
Support and protect the well-being of
Agriculture, Business and the Community.



2005 Crop Report Released
(Continued from Page 1)

Did You Know?

- California is the only State in the United States where counties produce an annual Crop Report.
- The Crop Report is the only source of county data except the Census of Agriculture which is produced every five years.
- California produces as many as 350 separate crops.
- Stanislaus County's Value of Production exceeds that of 20 States in the United States.



year 2005 amounts to almost \$9 billion. You can check out the Crop Report on our website at www.stanag.org.

Obtaining the Data

Each year the ranchers and growers are mailed a questionnaire from the Stanislaus County Department of Agriculture and Weights and Measures. The questionnaire requests information from the grower about the crop, acreage, harvest, and gross value of the crops they grow in Stanislaus County. Livestock producers, dairymen, poultry producers, and beekeepers are also asked for data. The responses are anonymous and are strictly confidential. The timely completion of the questionnaire is a crucial component in the

production of an accurate and informative Crop Report for Stanislaus County. Our Department does obtain statistics from several sources for the Crop Report but data provided by our local growers is critical to local value determination.

Importance of the Crop Report Questionnaire Data

- The information on the Crop Report is critical in accurately determining the overall value of agriculture in Stanislaus County. For some commodities, the questionnaire data is the sole source of value determination.
- Lending institutions and government agencies use the information compiled in the Crop Report to

make decisions about farm loans.

- In the case of a disaster or catastrophic event that affects Stanislaus County agriculture, the information in the Crop Report may be used to indemnify Stanislaus County and/or the agricultural community.
- The data provided by the growers determines where Stanislaus County ranks among the counties in California and the nation in agricultural production.

The Stanislaus County Department of Agriculture and Weights and Measures receives numerous calls from the media inquiring about county agricultural production. The Crop Report provides the media with a reliable and complete source of agricultural statistical information.