Spring 1995 Volume 1.2

COOPERATIVE EXTENSION • DEPARTMENT OF BOTANY AND PLANT SCIENCES • UNIVERSITY OF CALIFORNIA, RIVERSIDE

CO-HORT

A NEWSLETTER FOR TURFGRASS, LANDSCAPE, AND NURSERY ISSUES.

LANDSCAPE LISTINGS

by Dennis R. Pittenger

HISTORY OF THE SHAMEL ASH

(Adapted from W.T. Drysdale, UC Riverside Botanic Garden Newsletter, 1994, Vol. 14, No. 4)

Mr. A.D. (Archie) Shamel worked for the U.S.D.A for most of his life. For many years he was involved in date culture in the Coachella Valley. He also was engaged in work on sugar beets. Although he was often called "Doc" Shamel, he had no Ph.D. He served for over 20 years on the Riverside, California, City Park Board and was on the City Beautification Board of the Chamber of Commerce. From time to time he wrote an article in the local newspaper on some distinctive or beautiful tree, where it was located, and a bit of cultural history. These articles were assembled into an inexpensive booklet, *sans* photos, and distributed by the Riverside Chamber of Commerce.

However, Mr. Shamel's name will be irrevocably and unfortunately linked with his ash, *Fraxinus uhdei*. He introduced this evergreen ash from the semi-arid regions of northern Mexico. He visited the location where they are indigenous for several years trying to evaluate them. From several trees whose conformation and medium size he thought most desirable for Southern California, he took a number of cuttings. These he rooted and distributed to nurserymen for vegetative propagation.

The time period was immediately after World War II, and a number of new housing tracks were developed in Riverside. A nurseryman who catered to this seemingly endless number of new home owners decided to propagate the Shamel ash the quick and easy way, by seed. Of course, seed grown ash trees do not often carry the desirable traits of the parent plants. As a consequence we now have numerous near 100 foot monsters that break curbs and sidewalks and disperse seeds over a vast area resulting in "arboreal weed" growth and creating a horticultural nightmare. Though there are a few nice specimens of moderate size and good habit, most are very unlike those selected by Mr. Shamel. So please remember when maligning the Shamel Ash that it was not Mr. Shamel's action that resulted in this mess.

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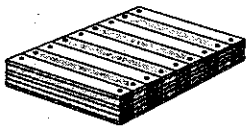
USING PAPER TO MAKE COMPOST



Paper added to a compost pile will decompose if it is shredded and mixed with green plant refuse. Most households have an ample supply of old newspapers, magazines, and phone directories, but some gardeners worry that the ink used in these publications may add toxic chemicals to their compost. Since horticultural reference books contain little detailed information on this subject, Vincent Lazaneo, Horticulture Advisor, University of California Cooperative Extension, San Diego County, collected samples in 1993 of newspapers, magazines, and phone directories in San Diego for laboratory analysis. A representative sample of paper was collected from each source with a paper punch. Glossy paper inserts were removed from newspapers and sampled separately for analysis. Samples from phone books did not include covers, and samples from magazines did not include covers or postcard inserts.

He submitted the samples to the DANR Analytical Laboratory at the University of California, Davis. The laboratory was instructed to test all of the paper samples to determine the concentrations of boron, cadmium, copper, lead, and zinc.

Firm conclusions cannot be drawn from the test results since only one issue of each publication was sampled. However, based on the test results, Vince said it appears that phone directory paper and the newsprint portions of newspapers are the best sources of paper for making compost. Samples from these sources generally contain a lower concentration of copper and lead than paper from magazines or the glossy inserts in newspapers. All sources contained a similar amount of zinc with the exception of glossy paper from the local newspaper, which had a much higher concentration. The amount of cadmium in all sources was less than 0.01 ppm.

To achieve some perspective, Vince compared the concentration of heavy metals from paper sources with those found in California soils. The concentration of heavy metals contained in paper is often less than that occurring naturally in soil. An analysis of 26 soils gave values for zinc ranging from 5 to 142 ppm, with many soils close to 60 ppm. Values for copper ranged from 4 to 33 ppm, with several soils close to 15 ppm. Cadmium values ranged from 0.1 to 1.1 ppm, and the lead content of 6 soils ranged from 8 to 27 ppm.

LIQUID FERTILIZER CONCENTRATES FOR LAWNS AND LANDSCAPES

(from Green Industry Newsletter, Ohio State University Cooperative Extension)

Liquid and soluble fertilizer products dispensed in bottles through retail outlets have become widely available. The bottles usually attach to a garden hose and have aspirators to dispense the product as water passes over the fertilizer concentrate. Products are typically 20 to 30 percent nitrogen and packaged in bottles that are 32 or 64 oz. by volume. Instructions may recommend coverage of 2,500 to 5,000 sq. ft. per bottle.

Although these products are easy to use, there is a minimal contribution of nutrients to a lawn or landscape, so the cost for an adequate fertilizer program by this approach is quite high. As an example, if a 32 oz. volume bottle that contains 2.68 lb. of fertilizer with 26% nitrogen content by weight is applied over 2,500 sq. ft., it delivers only 0.28 lbs. of nitrogen per 1,000 sq. ft. It would require repeat applications every 2 or 3 weeks to provide adequate fertilizer for lawns, and 3 additional applications for many other landscape plantings.

RESOURCES AVAILABLE ON PEOPLE-PLANT INTERACTIONS

A number of useful reference materials on people-plant interactions are available through the People-Plant Council. These include videotapes, an industry article packet, symposium abstracts, and computerized bibliographies. Contact Dr. Diane Relf, Department of Horticulture, Virginia Polytechnic Institute and State University. Blacksburg, VA 24061-0327, telephone (703) 231-6254.

FIREWISE LANDSCAPING VIDEO AVAILABLE

Some of the worst wildfires in history occurred in 1994. In response, the National Fire Protection Association has produced, and provided to us, a series of three VHS video cassettes on firewise landscaping. These instructional videos

provide an overview of firewise landscaping plus principles of design, installation, and maintenance that can reduce the damage from wildfires. Each video runs 10 to 15 minutes.

Anyone interested in using these videos in Extension educational programs can borrow the set. Please call Susana Denney in the Department of Botany and Plant Sciences, University of California, Riverside, at (909) 787-4430.

ALL-AMERICA SELECTIONS PROVING GROUNDS

Since 1993 the independent All-America Selections (AAS) organization has been testing new, unsold flowers and vegetables that are propagated by seed. Listed below are the locations of the 1995 AAS trial and display grounds in California. The display grounds are open to the public, but the trial grounds may not be. Contact the trial judge to arrange a visit to one of their facilities. Some trial grounds also provide display gardens on site.

1995 AAS Judges and Trial Grounds:

Bodger Seeds, Limited — Flower and Bedding Plants
1851 W. Olive
Lompoc, CA 93436
Mr. Howard Bodger (1971)

Floranova, Limited — Flower
100 Breen Road
San Juan Bautista, CA 95045
Ms. Adrienne Mellon (1993)

Goldsmith Seeds, Inc. — [1]Flower and [2]Bedding Plants
2280 Hecker Pass Road
Gilroy, CA 95020
[1]Mr. Glenn Goldsmith (1973)
[2]Ms. Tilly Holtrop

Ferry-Morse Seed Company — Vegetable
2191 San Juan Hollister Road
San Juan Bautista, CA 95045
Dr. George Emery (1983)

PanAmerican Seed Company — Flower and Bedding Plants
335 S. Briggs Road
Santa Paula, CA 93060
Mr. Blair Winner (1984)

Petoseed Co., Inc. — Vegetable
37437 Hwy. 16
Woodland, CA 95695
Ms. Teresa Beck Bunn (1995)

Rogers Seed Company — Vegetable
7240 Holsclaw Road
Gilroy, CA 95020
Mr. Alex May (1995)

Sakata Seed America, Inc. — [1]Flower and Bedding Plants [2]Vegetable
105 Boronda Road
Salinas, CA 93907
[1]Ms. Kathleen M. Kulp
[2]Mr. Joe Kojima (1986)

VRT Seed Company — Vegetative
9870 Fairview Road
Hollister, CA 95023
Mr. Thomas Valentine (1982)

Waller Flowerseed Company — Flower and Bedding Plants
400 Obispo Street
Guadalupe, CA 93434
Mr. Doug Holden (1994)

1995 AAS Display Gardens:

Cal Poly University
3801 W. Temple Avenue
Pomona, CA 91768

Civic Center Garden
100 Civic Center Plaza
Lompoc, CA 93436

City of Chino Civic Center
13220 Central Avenue
Chino, CA 91710

College of Sequoias Farm
2245 S. Linwood
Visalia, CA 93277

Filoli Center
Canada Road
Woodside, CA 94062

Fullerton Arboretum
California State University
Yorba Linda Blvd. & Associated Road
Fullerton, CA 92634

L.A. State & County Arboretum
301 N. Baldwin Avenue
Arcadia, CA 91007

Pier 39, Inc.
Beach and Embarcadero
San Francisco, CA 94133

Sea World
1720 S. Shores Road
San Diego, CA 92109

Soquel High School - FFA
401 Old San Jose Road
Soquel, CA 95073

Sunset Publishing
80 Willow Road
Menlo Park, CA 94025

Strybing Aroretum & Botanic Garden
(Golden State Park)
9th & Lincoln Way
San Francisco, CA 94122

William Land Park
Corner Sutterville Road &
South Land Park Drive
Sacramento, CA 95822

TURFGRASS TIDBITS

by Victor A. Gibeault

BENEFITS OF TURFGRASS

Turfgrasses provide benefit in a **functional way**, by reducing soil erosion, dissipating heat, abating noise, and reducing glare, air pollution, nuisance animals and dust, as was discussed extensively in Volume 1.1 of this newsletter. In this issue, I would like to develop the premise that turfgrasses also benefit **recreational activities** and the **aesthetics of our surroundings**. This issue is important to Californians because residents and policy-makers are evaluating the use of natural resources, such as water, from a cost-benefit perspective. While costs can be fairly easily determined, an understanding of turfgrass benefits to people and our environment is equally important in decision-making.

Many recreational facilities depend on a uniform, well-maintained turf sward as a medium for play. Common examples include golf courses, bowling greens, picnic areas and parks, soccer, lacrosse, polo, baseball, and football fields and school grounds. Turfgrass provides the low-cost, durable, smooth surface required for many of these recreational activities and sites and also provides a safety cushion that is aesthetically appealing.

Turf surfaces provide a degree of safety for contact athletic activities. In Pennsylvania a study reported that over 20% of high school football injuries could be field-related; 5.7% of injuries suffered were definitely field related and 15.2% were classified as possibly field related. It has been shown that surface hardness is reduced and traction is increased, both important characteristics of field safety, with fields that have good turfgrass cover and quality. Also, field resiliency, from a turfgrass cover, can help to protect legs while running or walking.

A smooth, durable and uniform turfgrass surface is important to the play of the game. Ball role and bounce are influenced by the turfgrass cover and management as are player movements such as walking, running, cutting, veering, stopping, pivoting, dodging, lunging, jumping, and landing. Durability of a field cover is becoming an important issue because of overuse of facilities. The ability of a turfgrass stand to provide a smooth and uniform surface is being pushed to the extreme on many community sports facilities that are being overused.

Turfgrass also has an aesthetic function on recreational facilities, especially for viewers of athletic events, but also for the participants who want the "feeling" of participating in events on a well-maintained and pleasing turf field. Attention to the aesthetics of an athletic field is best evidenced by the emphasis on use of colorants, painting of lines, and use of appealing mowing patterns.

Turfgrasses are not only important aesthetically in recreational facilities, but also in our larger environment of man's planned landscape. Turfgrasses are a component of landscapes that are attractive and give an improved quality of life. Respondents to surveys have indicated that they want green grass, trees and open space for their surroundings. In contrast, urban and suburban areas, where over 90% of Californians reside, can be dismal without landscaped parks, schools, golf courses, homes, and workplaces; reduced productivity at work and more susceptibility to anxiety can result. Studies have reported that homeowners close to a natural landscape had more neighborhood satisfaction than those without such proximity. Also, hospital patients given an outdoor view of turf and trees recovered more rapidly and required less medication than those without the outdoor view. Recent research indicates that views of open green space can promote quicker recovery from experimentally imposed stress compared to busy urban or mall scenes.

After 20 years of research in the area of people-plant interaction, psychologists Drs. Rachel and Stephen Kaplan of the University of Michigan have summarized their thoughts about the benefits of "nearby nature" and nature as a restorative experience as follows (from: The Experience of

Nature-A Psychological Perspective, Cambridge University Press, 1989, 340 pages):

"We have seen the importance of scenery as a natural and psychological resource. We have seen the potential power of wilderness, both in the literal sense and in the broader meaning of opportunities for hiking and camping. And, finally, nearby nature and gardens deserve far more standing than they usually are accorded. **Viewed as an amenity, nature may be readily replaced by some greater technological achievement. Viewed as an essential bond between humans and other living things, the natural environment has no substitutes." (p. 203, 204).**

In urban and suburban California environments, man's planned landscape provides for many the closest thing we have to nearby nature. The landscape gives city-dwellers a view to biological cause and effect and a psychological link to the solace and understanding our vanishing wilderness once gave (Schert, R.W. 1961. The Lawn Book. Macmillan, p. 2). The aesthetic value of turfgrass, as well as other landscape plant materials, to the human spirit and mental health in the fast-paced, urbanized lifestyles of modern society is starting to be realized based on recent and on-going studies.

This discussion is primarily based on the following references:

Beard, J.B. and R.L. Green. 1994. The role of turfgrass in environmental protection and their benefits to humans. Journal of Environmental Quality 23(3):452-460

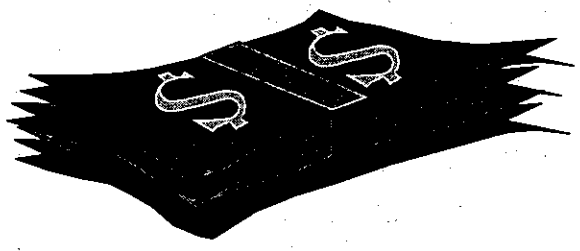
Cockerham, S.T., V.A. Gibeault, and R.A. Khan. 1994. Alteration of sports field characteristics using management. International Turfgrass Society Research Journal 7:182-191.

TWO NEW PUBLICATIONS

Turfgrass Pest Management Guidelines was updated and released by IPM Education and Publications of the University of California in October 1994, to be used with companion publication #4053, *Turfgrass Pests. Turfgrass Pests* is designed to help with the identification of turfgrass insect, disease, weed, and vertebrate pests, and to present activity and treatment periods for those pests. The Guidelines present complimentary information on the commonly used turfgrasses in California and detailed information on specific insects, diseases, nematodes, and weeds including cultural and chemical control methods. Both publications stress the importance of IPM principles regarding turfgrass pest management, that is, selecting and establishing well-adapted turfgrass species and cultivars for the local site and intended use; and of maintaining the grass correctly with optimum mowing, fertilization, irrigation, and thatch and compaction management being practiced. The Guidelines are available from the University of California Cooperative Extension offices for the price of duplication and from UC ANR Publications as a subscription for $20.00. The subscription price includes three updates which are expected to be released over the next few years.

Pests of Landscape Trees and Shrubs, Publication #3359, also released in 1994 by the UC ANR Integrated Pest Management Project, details how to use IPM strategies by landscape professionals, pest managers, and homeowners interested in woody ornamental plants. Covered in the 327-page book are items such as landscape design, plant selection and planting, and cultural care activities to minimize pest damage, and chapters on pest identification, biology, monitoring, and management. Two complementary problem-solving tables are given to help diagnose problems being observed. Excellent color photographs are extensively used to assist with pest identification and damage symptoms. The book can be ordered from ANR Publications of the University of California at 6701 San Pablo Avenue, Oakland, CA 94608-1239, or by calling (510) 642-2431. The current cost is $32.00

TURFGRASS SOD VALUE



In the most recent issue of *TurfNews,* a trade publication of Turfgrass Producers International (TPI), it was noted the result of the acreage and value of turfgrass sod on a state

and national level as prepared by the U.S. Department of Commerce's Bureau of Census. In 1992 in the U.S., 1,614 sod farms grew turfgrasses on 218,161 acres with a gate value of $471,640,000. Texas and Florida had the largest number of farms (156 and 154 respectively) while Florida produced the largest acreage of turfgrass sod on 52,030 acres. In comparison, California's 62 sod farms had 8,420 acres under production, but the state led all others with a gate value of $79,357,000. California sales were nearly 32% higher than five years earlier, even though the number of farms increased by only 10.7% and the acreage increased by 16.9%. See: TurfNews 19(1):6-7, 1995.

NEW BERMUDAGRASS

Both common and hybrid bermudagrasses are used in California. They are well adapted to much of southern and central California, and they have the advantage of having a comparatively (to cool-season turfgrasses) low water use rate. Also, they are highly drought resistant. Recently, new cultivars of seeded bermudagrass (*Cynodon dactylon*) have been introduced that perform better than Arizona Common because they are more uniform, denser, of better color, and finer leaf texture. The new grasses have been developed by intercrossing selected clones of common bermudagrass then repeating the intercrossing and reselection process. Cultivars would include NuMex Sahara, Cheyenne, Sonesta, Sundevil, and Primavera as examples. In contrast, hybrid bermudagrasses have been developed as interspecific hybrids by crossing *Cynodon dactylon* with a separate species, African bermudagrass (*Cynodon transvaalensis*) and then selecting the hybrids for desirable turfgrass quality characteristics. Selection and marketing is done with vegetative plant material because the hybrids are sterile. Cultivar examples are Santa Ana, Tifway, and Tifgreen.

A new breeding and seed production method for improving bermudagrass has resulted in the announced release of the cultivar Princess bermudagrass, a reported dark green, fine bladed grass that is propagated from seed. Both parents of Princess are of the species *Cynodon dactylon*, with the cultivar being the first generation hybrid of the intraspecific cross thereby assuring that only first generation seed will be produced and marketed. The parents of Princess were developed by conventional plant breeding and selection; the combining ability of the desirable parental characteristics have been good as has the sward uniformity of the cultivar. A study is now underway at UC Riverside to evaluate the performance characteristics of the intraspecific hybrids in comparison to other bermudagrasses. (See: Baltensperger, A.A. and J.P. Klingenberg. 1994. Introducing new seed-propagated F1 hybrid (2-clone synthetic) bermudagrass. USGA Green Section Record 32(6):14-19).

NURSERY NUGGETS

by Ursula K. Schuch

MANAGEMENT OF SPRINKLER IRRIGATION TO MAXIMIZE WATER APPLICATION EFFICIENCY

Overhead sprinkler irrigation is commonly used in the production of woody ornamentals to irrigate plants in containers less than 20 liters in volume. At smaller container sizes, drip installation and maintenance of individual emitters to each pot is very costly. One problem of overhead irrigation is the generally poor irrigation application efficiency (amount of water retained in the container and available to the plant/ total water applied). With the tightest spacing possible, the best irrigation efficiency was 80% and rapidly dropped when plants were spaced further apart.

Principal causes of low overhead irrigation efficiency are deflection or capturing of water by the canopy, and spacing of containers. Optimum irrigation system installation and sprinkler operation are assumed to maximize irrigation efficiency. One study reports that percent water captured was inversely related to the leaf area of a plant over the container when containers were separated, and with total leaf area of the plant at a pot-to-pot spacing. Canopy densities were less related to percent water captured than leaf areas. Using marketable plants in containers from 3.8 to 11.4 liters, irrigation application efficiencies ranged from 37% at a close spacing to 25% at a spacing of 7.6 cm between containers. Rather than increasing the spacing between containers to achieve more growth, this study suggests that higher irrigation efficiency would be maintained if plants were transplanted to larger containers and kept at the tightest spacing possible.

Increasing irrigation frequency and decreasing the volume is another possible method to increase efficiency. This practice is also referred to as pulse irrigation and has been reported to reduce water and fertilizer use by 30% and 50%, respectively, in a commercial nursery. A recently published study showed that irrigation efficiency in pine bark media was increased by 10% as the time interval between cyclic applications increased from 20 to 40 min. Irrigation efficiency was always inversely related to the water content of the media before irrigation and to the application volume. The most effective methods to increase irrigation efficiency were to irrigate when the media had reached lower moisture content, or to irrigate more frequently with lower volumes at higher media moisture content.

Leachate NO_3-N and NH_4-N concentrations and EC were unaffected by the rate of irrigation application. However, as leachate volume increased 66% more total N was leached at the highest (2.1 cm/h) versus the lowest (0.7 cm/h) application rate.

Cyclic irrigation also affected the distribution of water in a 3.8 liter container. Compared to a single application, cyclic application of the same volume resulted in a higher water content in the bottom third of the container. With three applications of water spaced one hour apart per application, the first application increased water content at the top and middle section of the container, while the following two applications increase only water content of the bottom section.

Marigolds grown under cyclic versus continuous irrigation had higher shoot N concentrations, more root growth, and equal shoot growth. Substrate solution EC and NO_3-N and NH_4-N concentrations of both irrigation treatments were similar, but less total N was leached with cyclic versus continuous irrigation. This suggests that plants under the cyclic irrigation treatment can absorb more N than plants under the continuous irrigation treatment. Cyclic irrigation not only increased irrigation efficiency, but also the uptake of N. By switching from a single application to pulse irrigation growers can safely lower fertilizer concentrations and irrigation volumes without sacrificing plant growth.

Another study investigated whether cyclic microirrigation improves plant growth and water conservation. Four tree (*Acer rubrum* L., *Ulmus alata* Michx., *Quercus viginiana* Mill. and *Lagerstroemia indica* L.) and two landscape shrub species (*Rhododendron indicum* L. 'Formosa' and *Elaeagnus pungens* Thunb.) were grown in 10-liter (#3) polyethylene containers. Plants were irrigated with overhead impact sprinklers (control) or with individual low volume spray stakes. Microirrigated treatments consisted of the same or twice the volume per day per container compared to controls and were applied as one to three cyclic subvolumes. Shrub growth was seldom influenced by irrigation treatment. Xeric tree species (*U. alata* and *Q. virginiana*) grew as well with single volumes applied in 2 cycles as double volumes applied in 3 cycles; both produced significantly larger trees than the control. Mesic species (*A. rubrum* and *L. indica*) irrigated with double volumes in 3 cycles produced the largest trees that were significantly larger than single volume microirrigated or control trees. Growth of single cycle, single volume trees (overhead and microirrigation) was equivalent; thus, growth effects were due to cycling, not microirrigation. With commercially representative container spacings used, superior trees were produced with cycled microirrigation using 25% (xeric) or 50% (mesic) of the water volume per area applied through the overhead sprinkler.

Literature:

Beeson, R.C. Jr. and J. Haydu. 1995. Cyclic microirrigation in container-grown landscape plants improves plant growth and water conservation. J. Environ. Hort. 13(1):6-11

Beeson, R.C. Jr. and G.W. Knox. 1991. Analysis of efficiency of overhead irrigation in container production. HortScience 26(7):848-850.

Karam, N.S. and A.X. Niemura. 1994. Cyclic sprinkler irrigation and pre-irrigation substrate water content affect water and N leaching from containers. J. Environ. Hort. 12(4):198-202.

Karam, N.S., A.X. Niemura, and C.E. Leda. 1994. Cyclic sprinkler irrigation of container substrate affects water distribution and marigold growth. J. Environ. Hort. 12(4):208-211.

BACK BELTS MAY NOT BENEFIT DURING LIFTING

Nursery work involves repeated bending and lifting for many hours and has been cited as one of the working environments with high risk for back injuries. In the past few years the use of back belts has found its way into many nurseries, supposedly offering back support for employees.

The following article reviews a study by the National Institute of Occupational Safety and Health and physical therapists' experiences with back belts and leaves you suspicious about the value of back braces.

New Report Says Back Belts May Cause Harm

by Melissa Steineger

Everywhere you look these days it seems people are wearing back supports, those black nylon belts often with suspenders, that everyone from grocery store cashiers to truck drivers have donned. No wonder, since nationally the number of complaints about low back pain are second only to the common cold.

But a new federal report says back belts "do not mitigate the hazards to workers posed by repeated lifting, pushing, pulling, twisting, or bending" and "may produce temporary strain on the cardiovascular system." That jibes with what chiropractor Dr. David A. Torkko, D.C. has found. "Back braces don't protect the back," he says unequivocally. "We don't recommend that our patients wear them."

Back belts, weight belts, or back braces all work by increasing pressure on the abdominal cavity, thus assisting the muscles holding up the spine. Their therapeutic use may have begun with corsets used to help patients with back pain in earlier days. But what Torkko has found is that some patients rely on belts so heavily that their muscles actually atrophy because the belt takes over the work of the muscles. A similar brace, the cervical collar, has been used so extensively by patients, he says, that when the collar is removed they can no longer hold up their heads.

Cynthia Alvarado, M.S., O.T.R./L., an occupational therapist at Portland Rehabilitation Center, has seen similar problems. Belts, Alvarado allows, can be useful as a reminder to lift properly for worker whose jobs requires frequent lifting. But, she adds, good lifting practices are better for the back. Used properly, she says, belts should be left dangling from the shoulder straps and loosely wrapped around the waist, then cinched very tight for actually lifting. Instead, many workers with relatively sedentary jobs are leaving the belts on all day to relieve low back pain.

To physical therapist Joe Keeney, belts offer virtually nothing. "Our theory here," says Keeney, who also works at Portland Rehabilitation, "is that you have to create a lumbar support with your muscles. Strengthening abdominal muscles would be a better solution than back belts."

"These devices are being marketed as a solution to back injury, and the existing scientific evidence does not support this claim." says Dr. Linda Rosenstock, Director of the National Institute of Occupational Safety and Health (NIOSH). NIOSH recently reviewed existing studies of back belt use to evaluate claims that back belts can reduce work-related back injuries. In fact, the NIOSH study indicates the belts can do more harm than good because workers think they are protected and may attempt to lift more than they can. NIOSH researchers also uncovered indications that a tightly fitted weight belt can put a strain on the cardiovascular system by increasing heart rates and blood pressure levels during exertion. The study, which did not consider previously injured workers whose doctors have prescribed back belt use, "does not recommend the use of back belts to prevent injuries among uninjured workers and does not consider back belts to be personal protective equipment." "People wear them because they think they are protective," says Marie Haring Sweeney, chairwoman of the group that conducted the NIOSH study. "The data really doesn't support that."

For a free copy of the NIOSH Working Group report "Workplace use of back belts," contact:

NIOSH Publications
Mail Stop C-13
4676 Columbia Parkway
Cincinnati, OH 45226-1998
PHONE: 800-356-4674
FAX: 513-533-8573

Source:

Steineger, M. 1994. New report says back belts may cause harm.

Portland, OR: In Balance Magazine (Winter 1994-1995) 2(3): 1,12.

CALENDAR

MONTH	EVENT AND LOCATION	CONTACT
April 2 - 6	5th International Microirrigation Congress, Orlando, FL.	(616) 429-0300
April 25-26	Sports Fields Turfgrass Management Short Course. UC Davis.	(800) 752-0881
May 2-4	OHECC, UC Davis.	Richard Evans (916) 752-6617
May 23-26	Designing and Establishing Successful Woody Landscapes Short-course. Pomona College, Claremont, CA.	Dennis Pittenger (909) 787-3320 or Patricia Lindsay (916)752-4385.
May 31-June 3	Trees and Buildings Conference. The Morton Arboretum, Lisle, IL.	Gary Watson (708) 719-2415
June 19-30	Postharvest Technology of Horticultural Crops Short Course, UC Davis.	(916) 757-8899
June 27-30	Gardens for Youth: Nourishing Mind, Body, and Heart. Symposium. Pasadena, CA.	Anna Carroll, Am. Hort. Soc. (800) 777-7931, FAX (703) 765-6032
July 18-20	Plant Growth Regulator Society of America, Minneapolis, MN.	(413) 545-5219

Victor A. Gibeault
Extension Environmental Horticulturist
Department of Botany and Plant Sciences
University of California, Riverside

Dennis R. Pittenger
Area Environmental Horticulturist
Southern Region and Los Angeles County
University of California

Ursula K. Schuch
Extension Ornamental Horticulturist
Department of Botany and Plant Sciences
University of California, Riverside

Co-Hort is intended to be a quarterly publication and will be distributed to Farm Advisors, Specialists, and Department Faculty working in areas related to environmental horticulture. This publication is written and edited by Victor A. Gibeault, Dennis R. Pittenger, and Ursula K. Schuch, and prepared by Susana B. Denney, Administrative Assistant. Please address any correspondence concerning this publication to the editors.

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COOPERATIVE EXTENSION
U.S. DEPARTMENT OF AGRICULTURE
UNIVERSITY OF CALIFORNIA
OAKLAND, CALIFORNIA 94612-3560

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