

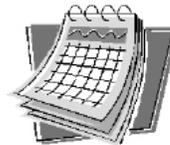


# Animal Science Newsletter

September 2003

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## Dates to Remember

### September

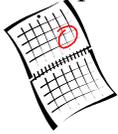
- 1 Hines Brothers / Express Ranches Bull Sale - High Springs, FL
- 5 West FL REC Extension Farm Field Day - Jay, FL
- 11-12 FCA Quarterly Meeting - Ft. Pierce, FL
- 13 County 4-H/Open Horse Show - Newberry, FL
- 16-18 Forage and Pasture Management School - Sebring, FL
- 20 Alachua County Youth Fair Market Steer & Goat Weigh-In - Gainesville, FL
- 22 2003 North FL Fall Classic Youth Prospect Steer & Heifer Show - Starke, FL
- 27 Florida Santa Gertrudis Annual Sale -Bartow, FL
- 30 North FL REC Fall Field Day 2003 - Quincy, FL
- 30 Food Safety and Quality program and Serv-Safe test - Inverness, FL
- 30 4-H Horse Project Committee - Gainesville, FL

### October

- 2-4 Southern Region 4-H Volunteer Forum - Eatonton, GA
- 3 FCA Quality Replacement Heifer Sale - Ocala Livestock Market - Ocala, FL
- 3 The Farm / Brangus Bonanza Sale - Okeechobee, FL
- 6 Hines Brothers / Express Ranches Bull Sale - High Springs, FL
- 6 Mo Brangus & Oak Knoll Ranch Brangus Bull Sale - Arcadia, FL
- 18 Ankony at Pine Ridge Bull Sale - Ocala Livestock Market - Ocala, FL
- 18 4-H Foundation Sport Clay Shoot Fundraiser - Orlando, FL
- 24 Graham Angus Bull Sale - Okeechobee, FL
- 25 Debtor Hereford Bull Sale - Horton, AL
- 31 Ankony Angus Sale - Omega, FL
- 31 Lemmon Angus Sale - Okeechobee, FL

## Prepared by Extension Specialists in Animal Sciences

- ❖ F.G. Hembry, Professor, Department Chairman
- ❖ E.L. Johnson, Associate Professor, Extension Equine Specialist
- ❖ T.T. Marshall, Professor, Beef Cattle Management
- ❖ R.O. Myer, Professor, Animal Nutritionist, Marianna
- ❖ R.S. Sand, Associate Professor, Extension Livestock Specialist 
- ❖ W. Taylor, Coordinator Youth Education/Training
- ❖ S.H. TenBroeck, Associate Professor, Extension Youth Specialist
- ❖ T.A. Thrift, Assistant Professor, Beef Cattle Nutrition



## Beef Management Calendar

### September

- ☑ Cut hay.
- ☑ Heavily graze pastures to be interplanted to cool season pastures.
- ☑ Check mineral feeder.
- ☑ Check for mole crickets, spittlebugs, and grassloopers, and treat if necessary.
- ☑ Check dust bags.
- ☑ Wean calves and cull cow herd if not already done. Remove open, unsound, or poor producing cows.
- ☑ Train cowboys to observe normal and abnormal behavior and signs of disease.
- ☑ Be sure any replacement purchases are healthy and have been calfhood vaccinated for brucellosis.
- ☑ September or October is a good time to deworm the cow herd if internal parasites are a problem.
- ☑ When replacement heifers are weaned, give them required vaccinations and teach them to eat – then put them on a good nutrition program.
- ☑ Determine bull replacement needs, develop selection criteria, and start checking availability of quality animals.
- ☑ Review winter feed supply and feeding plans so that needed adjustments can be made before supplies tighten and prices rise.

### October

- ☑ Plant cool season legumes.
- ☑ Plant small grain pastures.
- ☑ Check mineral feeder.
- ☑ Check for external parasites, especially lice, and treat if needed.
- ☑ Check for spittlebugs and grassloopers and treat, if needed.
- ☑ Watch condition of cow herd; maintain adequate nutrition.
- ☑ Isolate any additions to the herd for 30 to 60 days and observe for signs of disease; retest for brucellosis and leptospirosis.
- ☑ Be sure you have adequate handling facilities, and they are in good working order.

- ☑ If you are raising bulls for the commercial market, October thru December is the main bull-buying season for cattlemen in south Florida and now is the time to have your promotion program fully activated.

### November

- ☑ Have soils tested.
- ☑ Observe cows daily to detect calving difficulty.
- ☑ Use mineral with high level of magnesium if grass tetany has been a problem in the past.
- ☑ Check for external parasites and treat if needed.
- ☑ Maintain adequate nutrient level for cow herd.
- ☑ Calve in well-drained pastures.
- ☑ Survey pastures for poisonous plants.
- ☑ Start summarizing your annual records, both production and financial-then you will have time to make adjustments for tax purposes.
- ☑ Re-evaluate winter feeding program and feed supplies.
- ☑ Get breeding soundness exams on bull battery so you have time to find replacements if some fail.
- ☑ Implement bull conditioning program.
- ☑ Review plans and arrangements for the upcoming breeding season.
- ☑ Check progress of developing replacement heifers - are they going to meet your target weight by the start of the breeding season?



## Livestock Summary

Total U.S. meat production is expected to decline by less than 1 percent in both 2003 and 2004. Red meat production is predicted to drop nearly 2 percent because of the shrinking inventories of cattle, hogs, and sheep.

Beef production, on the contrary, has increased due to larger-than-expected slaughter in the second quarter of this year. That along with higher-than-expected placements in the second quarter and higher forecast placements in the third quarter suggests larger beef production in late 2003 and early 2004 than was previously expected.

Meat imports are falling below previous forecasts as a result of the May 20 ban on Canadian beef and reduced beef sales to Mexico.

The U.S. beef supply remains short with very strong demand. This trend was helped along by strong fed cattle prices which pushed the marketing of feedlot cattle forward to meet the demand.

Cattle price forecasts have been lowered because of the anticipated larger-than-previously expected 2003 and 2004 production. Currently though cattle prices have benefited from the still-resolved ban on Canadian beef and cattle.

The market is adjusting to the sharply higher beef prices as shifts toward less expensive cuts and competing meats are already occurring. Retail beef prices posted a record high \$3.656 per pound in June but are expected to decline remaining sensitive to supply changes.

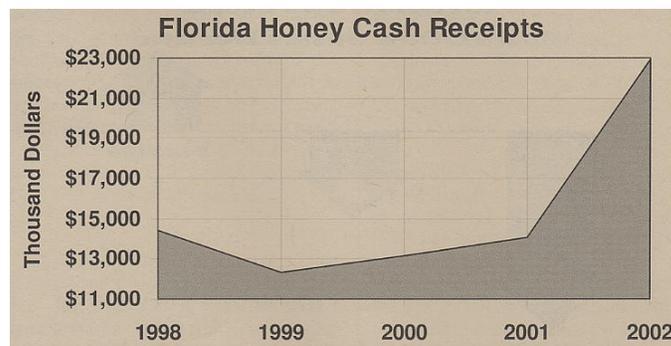
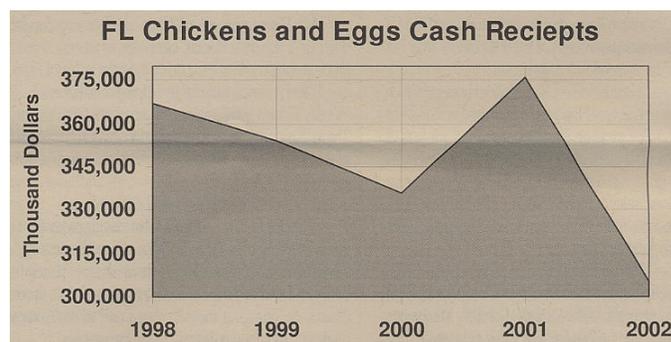
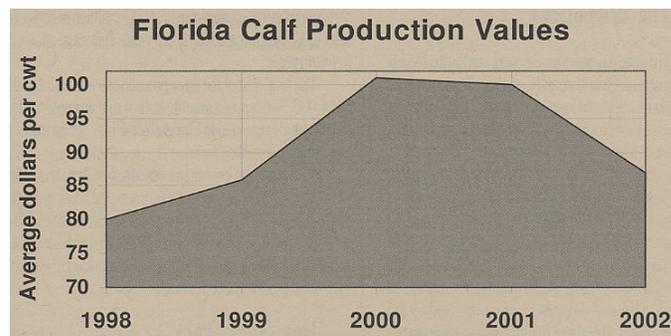
Dairy cow slaughter was up 13 percent, the highest since 1997, due to abnormal culling and low milk prices. First-half slaughter statistics strongly suggest at least one more year before the cattle industry even begins to move toward herd expansion. For expansion to be realized, a fairly large number of replacement heifers will need to calve and enter the cowherd in order to stabilize it.

Moisture and forage conditions are much improved in the eastern half of the country although the unusually wet weather has resulted in very poor hay making conditions. Drought remains a concern in much of the western United States, particularly New Mexico and Arizona with half or more of the acreage in the very poor-poor range.

Rebuilding forage stocks is still an issue as hot weather pulls moisture levels down quickly and many reservoirs remain well below normal as irrigation demands increase.

Florida's cow/calf operators are in a wait-and-see mode pending reopening of the Canadian market and negotiations within the international beef trading market on resolving the ban.

## Livestock Trends



**SOURCE:** The Florida Agri-Journal  
 Researched by Tony Young  
 Marketing Specialist I  
 Division of Marketing  
 Release – August 5, 2003

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## Seventh Edition of Sheep Production Handbook Available

U.S. sheep industry members as well as agricultural and animal-science instructors now have access to a new source of in-depth, peer-reviewed information -- the seventh edition of the Sheep Production Handbook.

"The information contained in the handbook has been authored by experts in their respective fields and extensively peer-reviewed to assure it is accurate and up-to-date," said Paul Rodgers, deputy director of policy for the American Sheep Industry Association (ASI).

Published by ASI, the 'handbook,' as it is referred to in sheep-industry circles, is unique in the fact that it is the cooperative effort of many individuals, organizations and agencies, instead of the work of just one or a few individuals.

The seventh edition contains revised information on major subjects such as breeding, forages, handling, health, management, marketing, nutrition, predator control, reproduction and wool. New features include an extensive dairy chapter and a hardbound cover.

"Some chapters have been changed a great deal from the former edition, while others have received up-dates," added Rodgers.

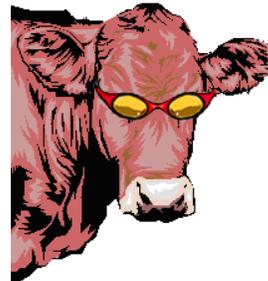
Other features include an extensive glossary of terms; a brief history of the handbook, written by George A. Allen, who served on the National Extension Sheep Committee and helped develop the first handbook edition more than 30 years ago; and the colors of the first edition -- green and yellow. The handbook is the primary text used to teach sheep production in universities around the country and is used as a reference by veterinarians, consultants, advisors and producers.

The book sells for \$49.95 each (plus shipping) or \$45.00 per copy (plus shipping) for orders of 10 or more. To order, call ASI at (303) 771-3500, ext. 32,

between the hours of 7 am and 3 pm Mountain Standard Time.

**SOURCE:** Paul Rodgers  
(304) 647-9981  
Laura Gerhard  
(303) 771-3500, ext. 30  
Release – August 8, 2003

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## Australian 'Cool' Cattle Taste Better

A recent study by Australia's Commonwealth Scientific and Industrial Research Organization shows beef from "cool cattle" cost less to produce and taste better.

In a prepared statement, the organization said selectively breeding beef herds from "cool-headed" cattle not only increase producers' profits but also produce better-tasting beef and that slower-moving cattle produced more tender beef, and increased profitability through a smoother production process.

"Poor temperament lowers cattle profitability through increased production costs -- for example (through) mustering, maintaining cattle handling facilities and the increased risk of injury to the cattle and their handlers," said project leader Heather Burrow. "Poor temperament also leads to decreased productivity due to the relationship (with) growth rates, fertility, carcass and meat quality."

Burrow told Reuters that over the past year her team had 12,000 carcasses evaluated using "sheer force" machines. This involved collecting muscle samples at slaughter and mechanically measuring the amount of force necessary to break through the tissue.

About half the samples were also taste-tested in Sydney using groups of untrained beef-eating

consumers in sporting clubs, parent and citizen associations and similar organizations.

Quiet cows outperformed their faster cousins not only in paddocks but also in feedlots, where CSIRO tests show flighty cattle tend to stand back at feeding time, failing to put on as much weight as quieter breeds, Burrow said.

The study found flighty cattle also produce less glycogen, a sugar that helps break down the muscle after slaughter.

**SOURCE:** Daniel Yovich  
<http://www.meetingplace.com>  
Release – August 8, 2003

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## UF Researchers Control Mosquitoes with Tiny Crustaceans

At a time when the number of West Nile virus cases is setting new records, University of Florida researchers are developing an environmentally friendly way of controlling mosquitoes without pesticides.

The solution: a rugged little crustacean that wages war on mosquito larvae with an almost maniacal vengeance.

"We're using a native organism to control mosquitoes when they breed in standing water, usually in ponds, tires and other open containers," said Jorge Rey, a professor of entomology with the University of Florida's Institute of Food and Agricultural Sciences.

"By adding tiny crustaceans called copepods to the water, we can kill mosquito larvae before they become adults that may spread West Nile and other diseases," he said. "Tests at our Florida Medical Entomology Laboratory in Vero Beach show that

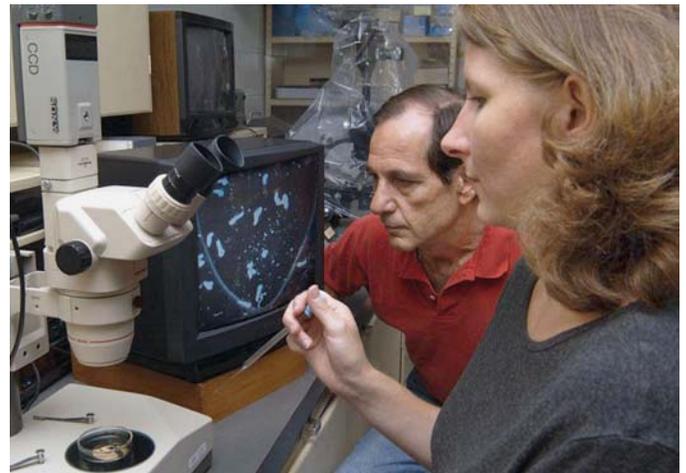
the copepods feed on mosquito larvae at an amazing rate, killing up to 90 percent of the larvae."

Rey said the copepod species he is testing, *Macrocyclus albidus*, is very aggressive toward its prey. In fact, the copepods will kill the mosquito larvae even when they are not looking for a meal.

"They will attack the larvae and maim it so it's not going to live and then drop it," he said. "We don't know why they behave this way -- it might be a reflex action or they're just being mean."

Rey, who has been testing the copepods for almost two years in discarded tires and other containers, said they can survive year-round in any size body of fresh water. His research shows the copepods prefer young mosquito larvae, usually those not older than four days. But they will attack older larvae when the number of young larvae declines.

He said the copepod is native to Florida and common throughout the world. It poses no danger to people, animals or plants. However, they don't exist in every body of water and therefore would have to be introduced in order to be effective on a wide scale.



Jorge Rey, left, a professor of entomology with the University of Florida's Institute of Food and Agricultural Sciences, and Sheila O'Connell, a UF biological scientist, examine tiny crustaceans called copepods that kill up to 90 percent of mosquito larvae in standing water. Rey said tests at the Florida Medical Entomology Laboratory in Vero Beach show that the microscopic copepods, which are native to Florida and common throughout the world, can survive year-round in any size body of fresh water. The copepods could become an effective new way to control mosquito larvae, he said. (UF/IFAS photo by Jim Newman)

6 September 2003

"Once the copepods become established, they reproduce in high numbers for effective natural or biocontrol of mosquito larvae," Rey said. "Copepods survive so well because they feed on a wide range of insect prey in the natural environment.

"Over the years, a variety of other biological control agents ranging from viruses to fish have been tried for mosquito control, but nothing seems to work as effectively as this microscopic natural predator," Rey said.

Current restrictions on pesticides, along with the growing problem of insect resistance to many chemicals, make biocontrols such as the copepod increasingly attractive, Rey said.

His research shows that the copepods are easy and inexpensive to raise and deliver to target areas. Large numbers of copepods can be reared in small plastic pools, plastic garbage cans and other inexpensive containers. The cultures do not need a lot of attention and are inexpensive to maintain. Copepods thrive in warm climates but can survive freezing temperatures for short periods. Pesticides commonly used for mosquito control do not kill the copepods.

Organisms to start the cultures can be collected in ponds and ditches and introduced into the containers with chlorine-free water. Wheat grains and Paramecium (naturally occurring microorganisms) can be used for food.

An instruction sheet for growing copepods is should be available from UF within a month. Information also can be obtained from local mosquito control offices.

He said more research is needed on ways to distribute the copepods in the environment for effective mosquito larvae control.

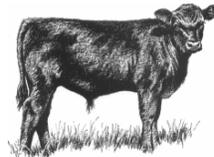
"Standard spray equipment can be easily modified to dispense copepods," Rey said. "Since they can withstand almost dry conditions, storage and transportation will not require large quantities of water."

He said biocontrol techniques, such as using copepods for controlling mosquito larvae, are attractive for developing countries where human resources usually are more available than money for expensive control alternatives.

**SOURCE:** Dr. Jorge Rey  
Florida Medical Entomology  
Lab, Vero Beach, Florida  
(772) 778-7200, Ext. 136

By: Chuck Woods  
ICS, University of Florida,  
Gainesville, Florida  
(352) 392-1773, Ext. 281

-SHT-



## Calving Ease of Angus Heifers Mated to Angus and Simmental Sires Selected for Reduced Dystocia

As a means of minimizing dystocia, it has been generally recommended that British yearling heifers not be mated to Continental bulls. However, in recent years, seedstock breeders in the Continental breeds have been putting increased selection pressure on improving calving ease. This has been especially true within the Simmental breed. In this two-year study, Montana State University researchers artificially inseminated commercial Angus yearling heifers on four Montana ranches using semen from 20 high calving ease Simmental and 27 low birth weight Angus sires. Simmental sires were in the top 10% of their breed for calving ease EPD and Angus sires were in the top 10% of their breed for low birth weight EPD. The dataset consisted of a total of 1,038 calvings in the year 2000 and 2001. Simmental sired calves were 2.9 days longer in gestation length and 4.7 pounds heavier at birth than Angus sired calves. Percent of assisted births was significantly higher for Simmental sired calves but the difference was not as

great as one might expect (41% versus 29%). The authors concluded that Simmental sires with calving ease EPDs in the top 10% of the breed can be mated to Angus heifers, of Montana origin, with only 10 to 15% increase in assistance rate over that of Angus sires in the top 10% for low birth weight EPD. Furthermore, as a result of both heterosis and breed complementarity, the crossbred calves would be expected to have heavier weaning weights and greater post-weaning rates of gain. As sexed semen technology advances, yearling heifers could be bred to female sperm, which would further reduce the incidence of dystocia. (Van Wagoner et al. 2003. Proc. Western Section ASAS, 54:159).

\$25 per calf and the cost of creep feed is about \$37 per calf. Again, with these cost and return values creep feeding is not profitable.

Another Oklahoma study involved creep feeding calves nursing two-year-old first-calf heifers. Calves creep fed 135 days were 108 pounds heavier at weaning than calves not creep fed. With the higher price per pound market value for the smaller non-creep fed calves, the advantage is only about \$50.00 per calf fed creep feed. Calves ate 740 pounds of creep feed which would cost about \$74. With these cost and returns, creep feeding is not profitable even for calves nursing two-year-old heifers.

**SOURCE:** Harlan Ritchie, Steven Rust, and Daniel Buskirk  
Beef Cattle Research Update,  
Summer 2003  
Michigan State University

In a four year creep feeding study at Brooksville, Florida, calves received creep feed for 60 days prior to weaning. The average increase in gain from creep feeding was 27 pounds per calf. It is interesting that the average gain response to creep feeding varied from 6 pounds per calf in the poorest year to 50 pounds per calf in the best year. A breed response to creep feeding also occurred, with a 52 pound increase for Hereford calves, a 34 pound increase for Brangus-type calves, and only an 8 pound increase for Brahman calves. Over all, calves consumed about 600 pounds of creep feed. With a feed cost of about \$60 per calf, creep feeding would be far from being profitable.

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## Does Creep Feeding Calves Pay?

Creep feeding calves is a way to put additional weight on calves prior to weaning. However, the performance of calves and the economics of creep feeding is not a sure thing.

A three year creep feeding study conducted in Alabama by Auburn University showed that calves fed creep feed for 182 days prior to weaning gained an additional 36 pounds. Calves consumed 507 pounds of creep feed. Today, the additional gain is worth about \$30 per calf (avg. heifers and steers). However, the cost of creep feed (at \$200 per ton) was \$50 per calf. Obviously, with these costs and returns creep feeding is not economical.

In a three year study in Oklahoma, heifer and steer calves fed creep feed for 159 days prior to weaning were 30 pounds heavier than non creep-fed calves. Creep-fed calves ate 363 pounds of feed. Today, the additional gain is worth approximately

Creep feeding calves is not an economical practice in most situations. Gain responses might offset feed costs during a drought or for calves nursing first-calf heifers. Also, the \$200 per ton cost for creep feed is for that delivered in 50 pound bags. Creep feed purchased in bulk quantities would cost much less which would help return a profit. But even with discounted feed prices, profits from creep feeding nursing calves are questionable. Also, the above economic analysis does not include the cost of creep feeding equipment nor labor. ).

**SOURCE:** Findlay Pate  
Range Cattle REC, Ona, Florida  
Published in "The Peace River  
Farmer and Rancher" – June 2003

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## Canada Seeks Changes to Slaughter Requirements

But the pitch is getting a cold reception. The Canadian request, which came during talks to lift restrictions on beef, was that the U.S. show flexibility on the demand that cattle under 30 months be slaughtered in a facility that does not process older cows. The two are currently slaughtered in the same plant in Canada.

"Certainly they made the request, we heard the request but I'm not aware that we're changing anything," said Ed Curlett, a spokesman for the U.S. Agriculture Department's animal health inspection service.

"These mitigations are what we believe is necessary to allow the importation of these products," Curlett said Tuesday from Washington.

"This is what the science is telling us is the thing to do . . . in this case, to prevent cross-contamination."

Experts believe cattle under 30 months are safe from bovine spongiform encephalopathy, known as mad cow disease.

It has been 90 days since the infection was discovered in a lone Alberta breeder cow and international borders slammed shut on Canadian beef, sending the industry into a tailspin with job losses in the hundreds and financial losses around \$1 billion.

Earlier this month, the U.S. and Mexico, Canada's largest beef market, announced they would partially lift bans on some Canadian meat products other than live animals.

Discussions are continuing on the slaughterhouse issue, which has major financial implications for an industry already reeling from three months without access to international markets.

Canada has suggested that packing plants could dedicate certain days or slaughtering lines for

export cattle to assure the animals are under 30 months of age, which most experts deem as safe.

A federal official in Ottawa said talks were at a "delicate state" and did not want to comment.

The beef industry is aware that changes are coming if the Canadian Food Inspection Agency cannot negotiate a change in segregation rules.

"It means we're going to see a specialization or shifting of processing capacity," said Ted Haney of the Canada Beef Export Federation.

About 15 per cent of cattle slaughtered are older animals, including breeder and dairy cattle, which are often processed into hamburger.

XL Foods, which kills 450,000 cattle a year, is considering having its Calgary facility slaughter cattle under 30 months while its plant in Moose Jaw, Sask., would handle older cows.

"The border is opening September 1st - supposedly," said Lee Nilsson, co-owner of the Calgary-based company. "When we see the border is opening and all the hoops that do come with it, then we will make a decision of what we're doing."

The partial border opening allows some cuts of boneless meat from young animals to be shipped south - an estimated 40 per cent of what Canadian producers were sending in early May.

Nilsson is watching the U.S.-Canada talks with hope, but said Canada is not in a strong bargaining position.

"At this point, what we want and what they say we can have are not necessarily the same thing," he said.

**SOURCE:** FASS Track  
<http://www.fass.org/fasstrack/>  
Release – August 19, 2003

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