



Because visions of sugar plums two step in your head.



This year celebrate the holidays with a seven year tradition—the Wrangler Cowboy Christmas CD*. Once again featur-

ing your favorite country artists like George Strait, Vince Gill, Reba McEntire, Tracy Byrd and many more. This holiday season listen to your favorite traditional and not so traditional songs, like Gary Allan's "Ol' Santa Claus". Lee Ann Womack's "His Will Is Done" and Alan Jackson's "Honky Tonk Christmas." Wrangler's Cowboy Christmas CD is a must have this Christmas. So before you get nestled all snug in your bed make sure your country favorites are dancing through your head.

The Cowboy Christmas CD is free when you buy Wrangler apparel this season.



millenniumissuespecial











How We Got Here

You can't gaze into the future without knowing something about the past. Check out our timeline of American agricultural history.

For some, a job is about collecting a paycheck. For these FFA members, a job is a way to make a difference in the world.

17 The New Age of Agriculture

The internal combustion engine revolutionized agriculture in the 20th century. Biotechnology, promises to do the same in the 21st century.

20 Gadgets of Tomorrow

Technology is making things smaller and smarter. Check out these futuristic gadgets that will soon reach the market.

24 Tomorrow is History

We wanted to get a firsthand look at the future, so we turned to futurist Watts Wacker, whose mind is already there.

departments

- ffa stars
- national officer q&a
- what's hot/what's not
- last laff

FFA Mission Statement

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.

Agricultural Education Mission

The mission of agricultural education is to prepare and support individuals for careers, build awareness and develop leadership for the food, fiber and natural resources systems.



November/December 1999 Volume 48 Number 2

Official Magazine of the National FFA Organization

David Doerfert publisher

Erich Gaukel editor Guy Gangi creative director Amy Amato art director Donna Cox custom publishing manager Margaret O'Malley production editor

Lisa Ahrens president 4110 Kirkwood Avenue

Osage, IA 50461 Abby Dougherty secretary

4707 Clark School Road

Andy Armbruster central region vice president 416 South Seventh Street

Kiowa, KS 67070 Emily Buxton eastern region vice president 410 Fourth Street Nellie

Warsaw, 0H 43844

José Santiago southern region vice president Ext. Villa Del Carmen Casa G2

Camuy, Puerto Rico 00627 James Garner western region vice president 622 West Fargo Avenue Apt. B

Hanford, CA 93230

Larry Case chair, USDE, Virginia
C. Coleman Harris secretary, USDE, Virginia
Marion Fletcher treasurer, state supervisor,

Ernie Gill state supervisor, Colorado Tommy Gladden state supervisor, South Carolina Steve Gratz state supervisor/USDE, Ohio

Karen Hutchison state supervisor, Delaware Barbara Kirby agriculture teacher/USDE, **North Carolina**

Vicki Lantz agriculture teacher/USDE, **Pennsylvania**

Ronald Reische state supervisor, Illinois Nick Siddle agriculture teacher/USDE,

Larry Case national advisor, chief Coleman Harris executive secretary Bernie Staller chief operating officer

Marion Fletcher national treasurer David Doerfert student services & magazine Dean Folkers teacher services

Tammy Meyer foundation
Sue Springirth human & fiscal resources William Stagg communication resources lanet Lewis & distribution resources

Dennis Shafer FFA ventures

Linda Burton Minnesota **Betsy Foote New York** Susan Kelly Florida Leigh Loughhead Arizona Rod Duckworth FFA executive secretary,

Arkansas Molly Avis & national FFA staff **Melinda Findley**

Shannon Mayo Mississippi Tiffany Rouse Missouri Michael Tuszynski Montana

Jennie Nelson Massachusetts

FFA New Horizons P.O. Box 68960

Indianapolis, IN 46268-0960 phone: 317/802-6060 fax: 317/802-6061

Glenn Sims national sales representative E11876 City View Road Baraboo, WI 53913-9703 phone: 608/356-3562 fax: 608/356-3563

FFA New Horizons (ISSN 1069-806X) is prepared and published bimonthly by Farm Progress Companies Inc. on behalf of the National FFA Organization, 6060 FFA Drive, Indianapolis, IN 46268, in cooperation with the U.S. Department of Education as a service to state and local agricultural education agencies. Periodical postage rate is paid at Indianapolis, IN and additional mail offices.

POSTMASTER: Address all correspondence to: FFA New Horizons, Attn Twana Griffin P.O. Box 68960, Indianapolis, IN 46268-0960 SUBSCRIPTION: Non-FFA member rate: \$5 for

one year in U.S. and possessions. FFA member rate: \$1.75 for one year (paid with dues). Single copy: \$1.50, or \$.75 each for five or more.

Foreign addresses: \$8. Copyright 1999 by the National FFA Organization.

The National FFA Organization affirms its belief in the value of human beings and seeks diversity in its membership, leadership and staff as an equal opportunity employer.



THE TRUCK has the most powerful V8 of any 4x4 pickup. It can haul over 3,000 lbs. It has our strongest full-size pickup frame ever, with a hydroformed front section. And it's built on a tradition as time-honored as the farm. A tradition of hard work and trust you can count on for generations. Silverado. It's The Truck. From Chevy. The most dependable, longest-lasting trucks on the road.**

SILVERADO



callingallstars

To nominate yourself or another FFA member for "FFA Stars," drop us a detailed note telling us why you or your nominee is a star. Include a photo and the nominee's name, address, phone and birthdate. If nominating someone else, include your name and phone number. Mail to:

FFA New Horizons "Stars" P.O. Box 68960 Indianapolis, IN 46268-0960

Lauren Gibson

OHIO

As Western Brown FFA Chapter reporter, 17-year-old Lauren credits her FFA experience for building her character and enabling her to just be herself. In addition to an SAE that involves beef and crop production, Lauren is active with the county general livestock judging team, her local 4-H club and the county fair livestock sale committee. Lauren, an honor roll student, has put together a strong academic showing in high school. She is now working on her state FFA degree. *

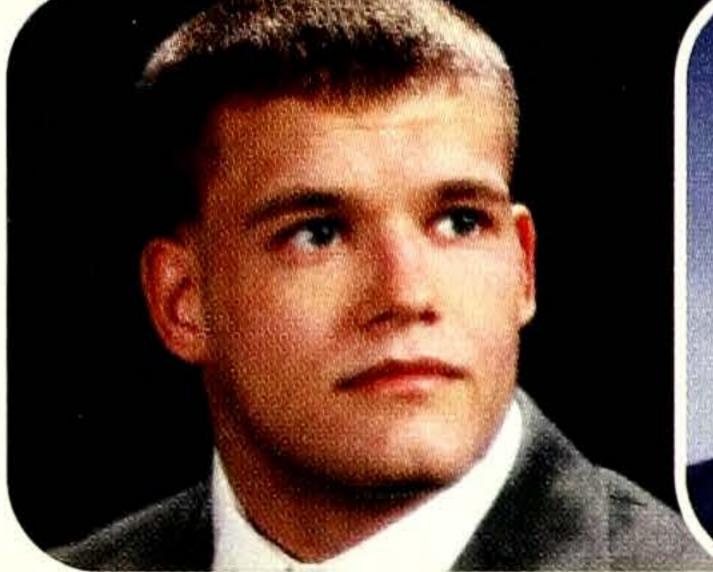


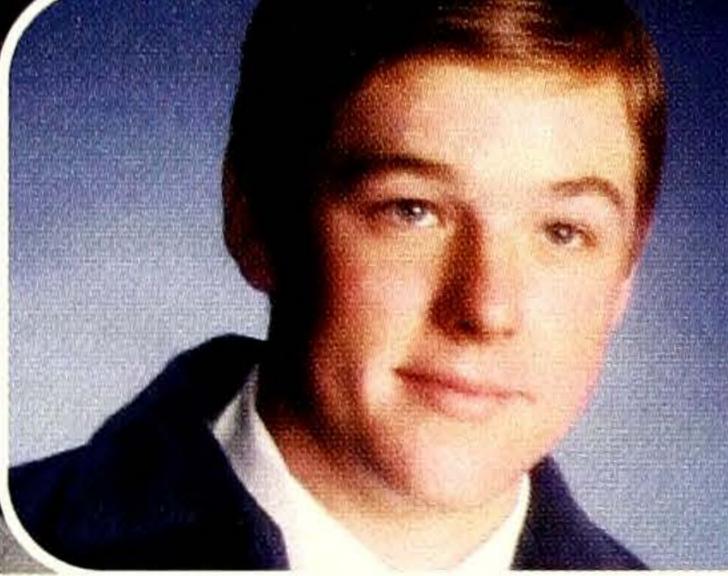
KENTUCKY

ARIZONA

PENNSYLVANIA

ARKANSAS









Jason Detre

A two-time state wrestling champion at 189 pounds, 18-year-old Jason knows that discipline is a key to success. This LaRue County FFA Chapter member finished high school this spring with honors and a 4.0 GPA. In FFA, Jason served as chapter and regional secretary and had SAE projects involving Beefalo cattle, blueberries and small animal care. His many accomplishments earned him a ticket to the prestigious West Point Military Academy, where he's a first year cadet.

Brandon Leister

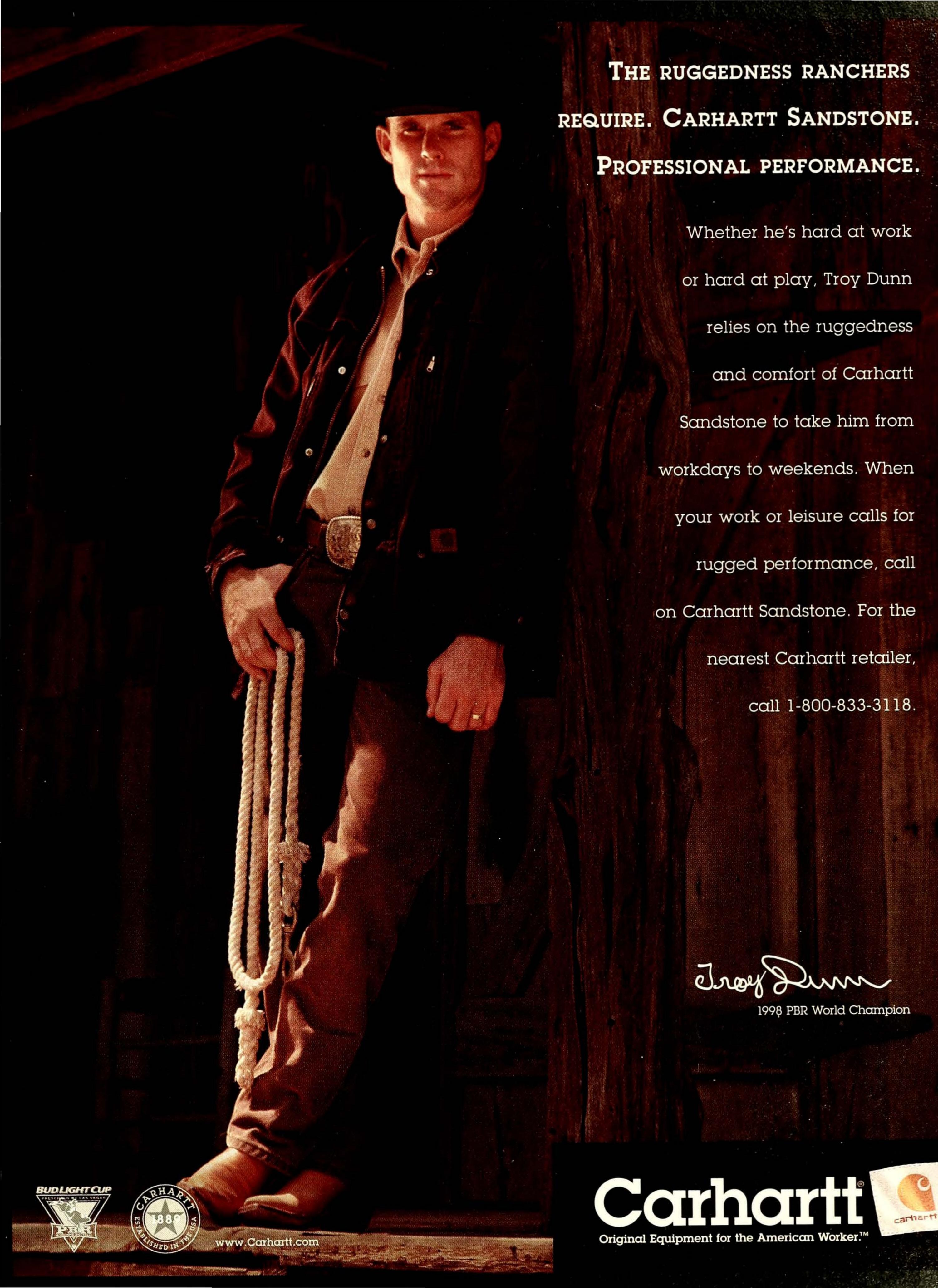
Brandon, an 18-year-old Buckeye FFA Chapter member, started showing cattle at the age of eight. Now, as a first year student at Estrella Mountain Community College with 30 cows of his own, he has his mind set on becoming a farmer. Brandon served as FFA chapter vice president and represented his chapter in ag mechanics and livestock judging competitions. He was recently named high point individual and high point team in livestock judging at the Arizona National Stock Show.

Lacey Zakostelecky

Lacey recently finished her reign as Crawford County Dairy Princess, a role in which she traveled over 7,000 miles and conducted 350 dairy promotions. This 17-year-old Conneaut Valley FFA Chapter vice president is also an honor student, leader of a church youth group, president of the local 4-H club, and a member of multiple school clubs and teams. Lacey also works for a local dairy farmer as a relief milker for a herd of 95 cows.

Cale Emmett

Fourteen-year-old Cale, a member of the Jasper FFA Chapter, is rapidly roping in rodeo awards. In 1998, the Ozark Junior Rodeo Association named him allaround champion cowboy, calf roping champion, breakaway roping champion and reserve champion in team and ribbon roping. Cale also received the sportsmanship award and was re-elected as student director. Cale's father, who is also his FFA advisor, competes in steer wrestling and team roping as a Professional Rodeo Cowboys Association member.



one on one with

José Santiago

How is your native land of Puerto Rico different from Nebraska, where you spent your first semester of college?

The weather is the first thing—Nebraska winters are much colder. On a personal level, I found that it's much easier to communicate and be comfortable in Puerto Rico, where everyone speaks Spanish. Puerto Rico is very small, so everybody knows everyone very well. In Nebraska, I had to start over and make new friends.

Was it difficult making new friends?

It wasn't, actually. My best friend, Phil Erdman, whom I met at a state FFA presidents' conference in Washington D.C., goes to school there, so we roomed together. It was amazing to see that I was the only one from Puerto Rico in the entire dorm, but I was glad to see that people were interested in talking to me and learning about my culture.

What do you do in your spare time?

I swim competitively. I have participated with the Olympic swimming team in Puerto Rico and placed second in the 100-meter breaststroke event at the 1995 World Games in

Japan. When I'm training, I have to wake up at five in the morning and go to the swimming pool, and then I run five miles a day.

Now that you've met with FFA members all over the country, what do you see as a common thread that unites them?

It's that they are FFA members. Regardless of where they are from, what color they are, or what language they speak, they all belong to the FFA and are striving in life to make the world a better place to live. They have told me that the FFA is giving them hope for their futures and hope for themselves. We're reaching people in rural areas and in urban areas and everywhere in this great nation. That's really exciting for America.

Who are your role models?

I have so many role models. I would say my role models are people who inspire me, who are positive, who follow God's purposes and the values that I havefaith, love and sincerity. I call them role models because I look on them as giants, and I am a little person who is looking at them because I want to learn how they reach success. And, more importantly, I look to people who are real. *

National southern region vice president: José Santiago

VITALS

Camuy, Puerto Rico

20

Piedra Gorda FFA
Luis Cardona

Diversified livestock production, agricultural communications, fruit and vegetable production

College freshman
Agricultural education

Austin Powers

a Person of Influence by Matt Maxwell

Ricky Martin

abichuela (rice and beans)

TIMELINE

Age

- joined FFA
- lost regional FFA public speaking competition
- attended first state FFA conference
- elected FFA chapter treasurer
- won state FFA prepared public speaking competition
- lost bid for regional
 FFA office
- elected regional FFA vice president
- won FFA extemporaneous public speaking competition
- lost bid for state FFA office
- made the Puerto Rico
 Olympic swimming team
- elected state FFA vice president
- competed at the World
 Games in Japan
- elected state FFA president
- elected national
 FFA officer





o... what else are you giving this

BROOKS & DUNN Tight Rope

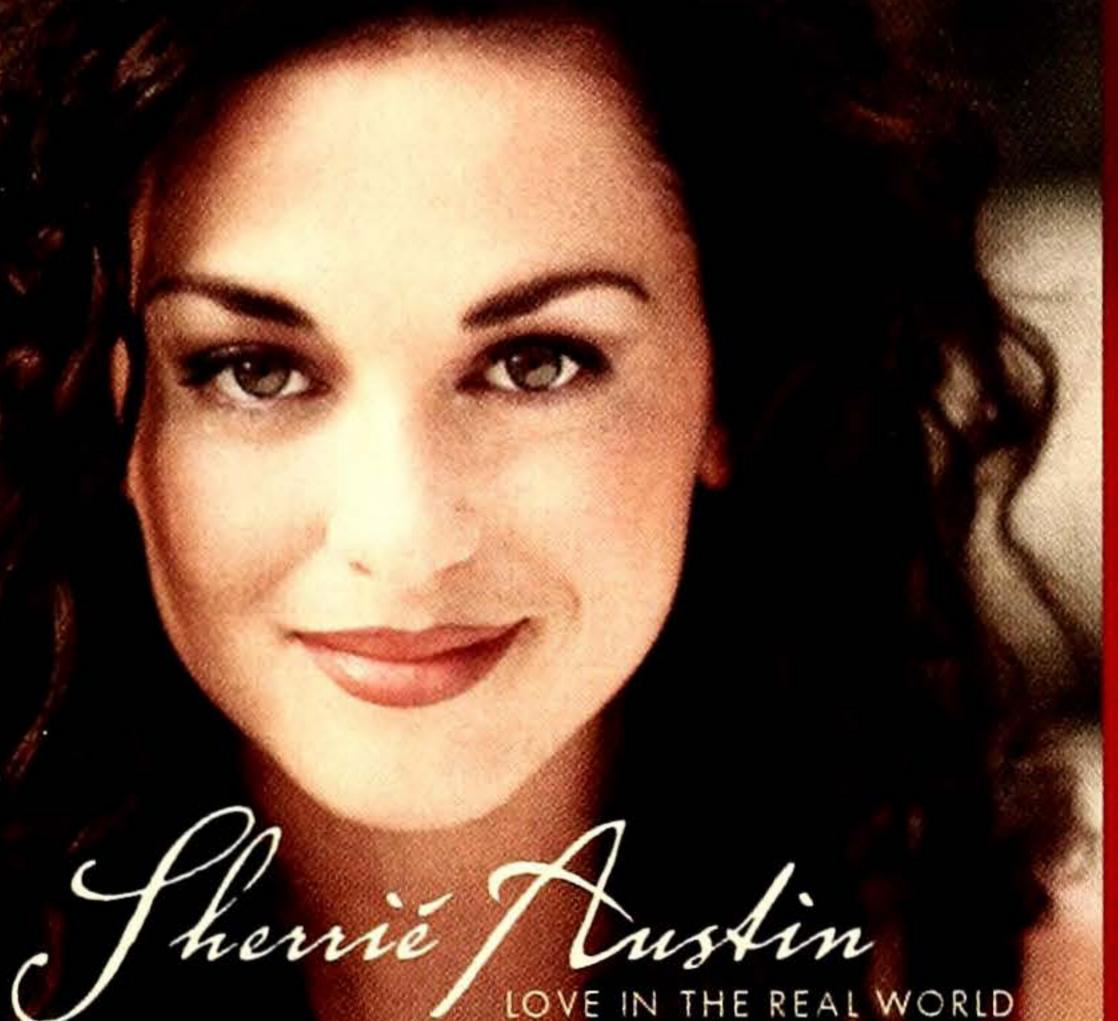
CHRISTMAS?

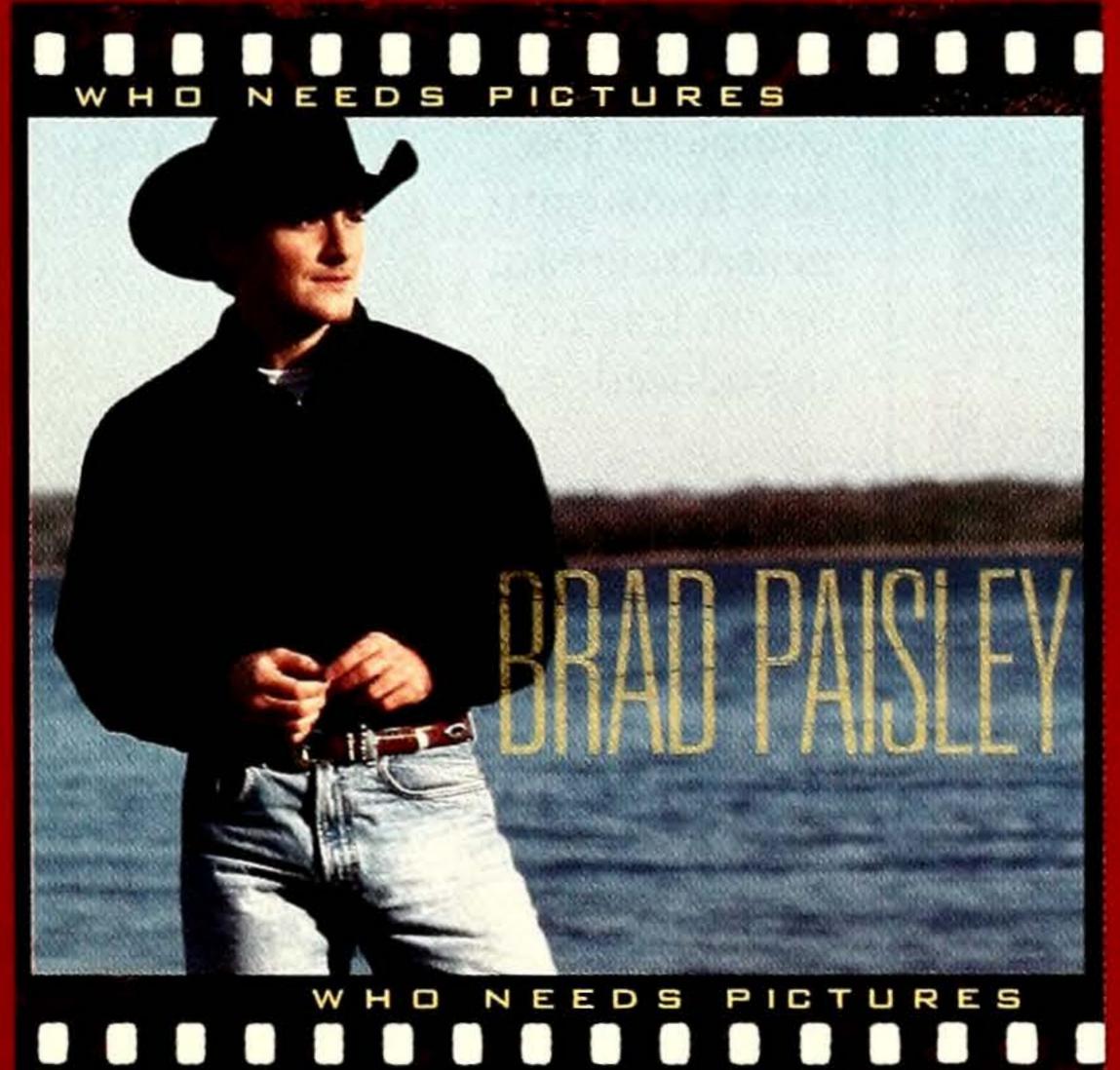


CHRIM

SHERRIE AUSTIN Love In The

Her infectious new album featuring the top-selling single "Never Been Kissed," "Little Bird" and much more.





BRAD PAISLEY Who Needs Pictures

His remarkable debut album featuring "He Didn't Have To Be" (a moving tribute to a loving stepfather), the hit title track and much more.



© 1999 Arista Records, Inc., a unit of BMG Entertainment www.twangthis.com

ALL ALBUMS AVAILABLE NOW!

102Stings
Your Entertainment Superstore



Native American agricultural practices include the domestication of such plants as squash, sumpweed, sunflower and chenopod.

A.D. 1000

Native Americans develop sophisticated farming techniques involving land clearing, development of crop varieties and irrigation. Corn becomes the most important crop.

1500s

Spanish cattle introduced into the Southwest.

1600s

In colonial areas of the East, successful corn crops are the key to success for many frontier farmers. Tobacco is successfully grown and quickly becomes first important export crop.



©1999 PhotoDisc

1790

The first U.S. patent, issued on July 31, is for a potash fertilizer developed by Samuel Hopkins of Vermont.

1793

Eli Whitney revolutionizes the southern farm economy by inventing the cotton gin, which removed seeds from the cotton.



©1999 PhotoDisc

1796

The Agricultural Society of South Carolina starts the first agricultural school for youth.

1810

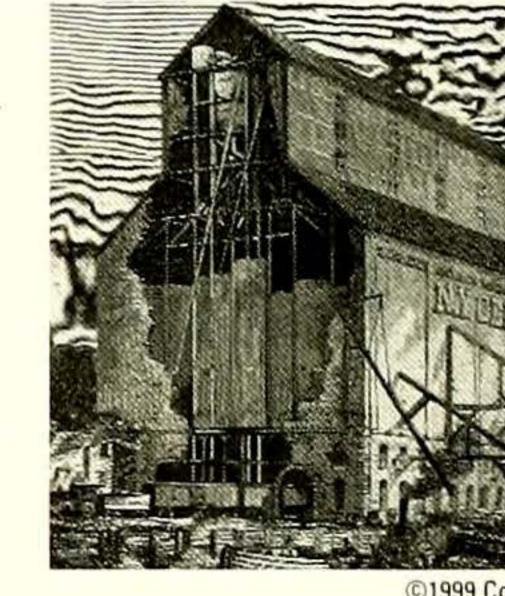
Steamboat becomes important in the western trade of agricultural commodities.

1837

John Deere develops his first steel plow, a device that could easily cut through the tough root system of the Midwest prairie grass.

1842

The first grain elevator is constructed in Buffalo, New York.



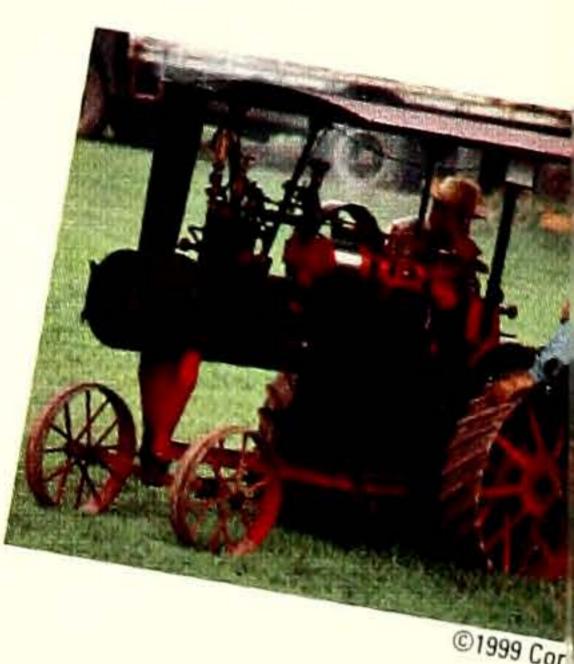
0,00

1862

The Homestead Act provides free land on the Great Plains.

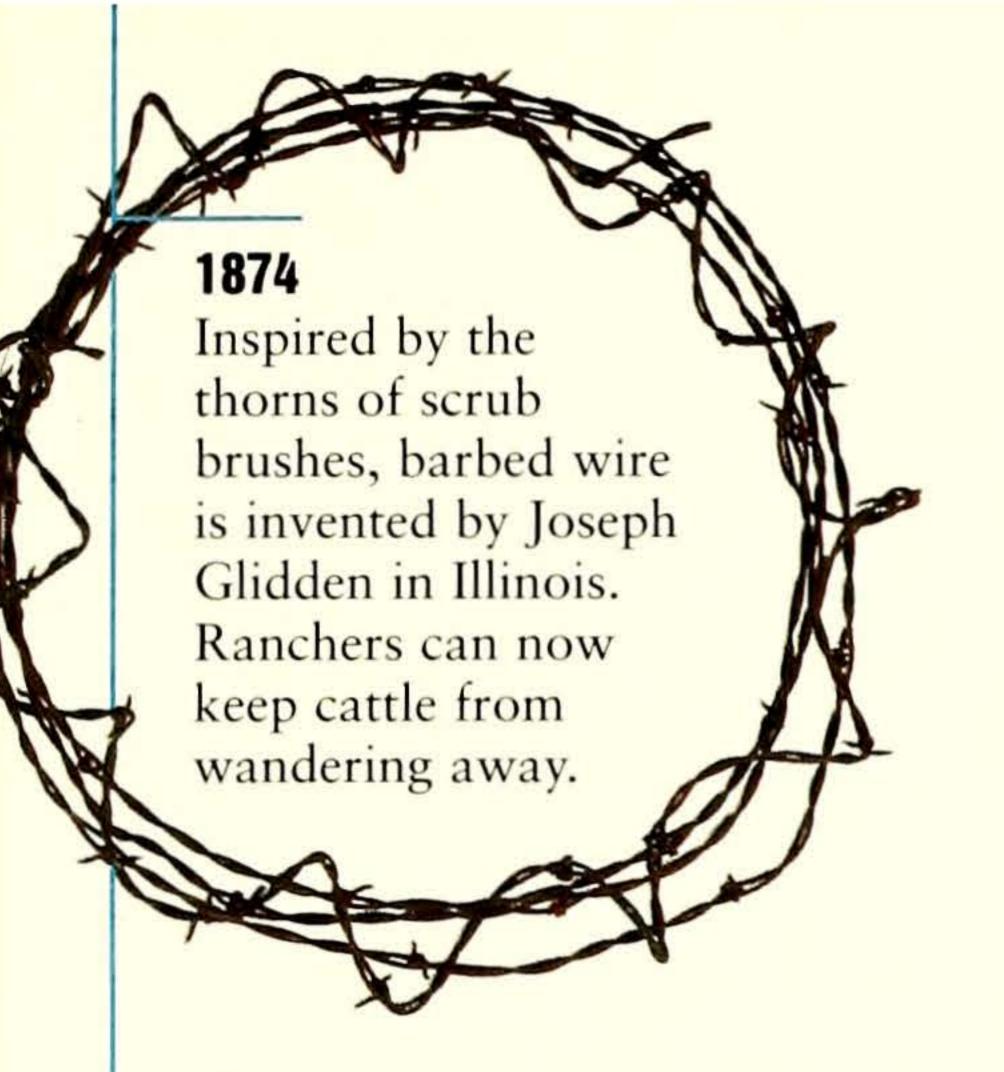
1869

Union Pacific completes the first transcontinental railroad. Steam tractors introduced.





1871 Luther Burbank begins developing hybrid plants.



1880

Booker T. Washington establishes an agricultural school for African-American youth.



©1999 Corbis

1892

The first gas-powered tractor rolls out of an Iowa barn, signaling the beginning of the end for work horses and unreliable steam tractors.

1900-10

George Washington Carver helps diversify Southern agriculture by finding new uses for the peanut, sweet potato and soybean.

1910-15

Gas-powered tractors come into wider use.

1917

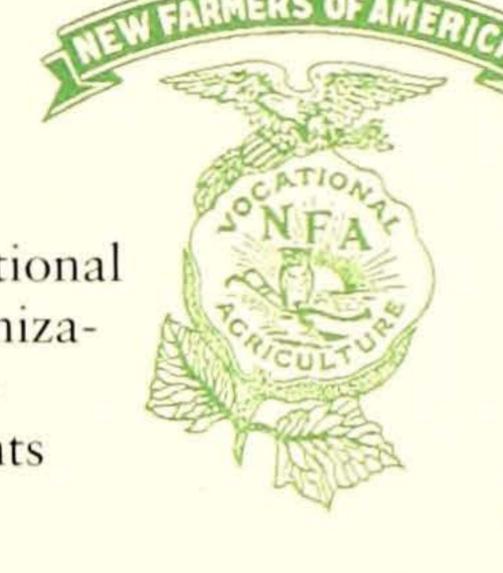
The Smith-Hughes Act, sponsored by Senators Hoke Smith and Dudley Hughes of Georgia, opens the doors for the creation of FFA.

1920

Only three percent of American farmers own tractors—the rest still use horses.

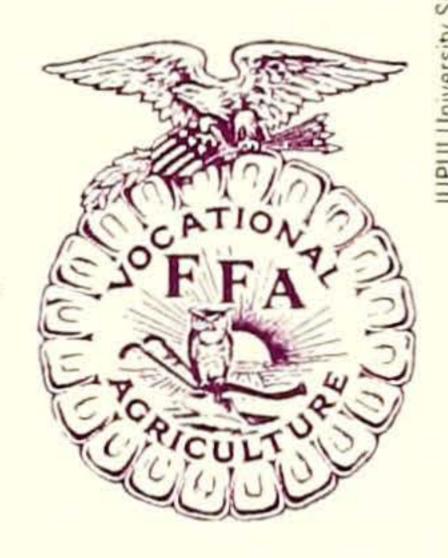
1926-27

New Farmers of America, a vocational agriculture organization for African-American students is founded.



1928

Future Farmers of America is founded.



1930-35

Use of hybrid corn becomes common in the Corn Belt areas of the Midwest.

1932

Farm prices and income reach Depression bottom

1940

Twenty-three percent of American farmers own tractors.

1941-45

Frozen foods become popular.



1954

Number of tractors exceeds the number of farm horses for the first time.

1965

New Farmers of America and Future Farmers of America are combined.

1970

Norman Borlaug, a former FFA chapter president from Iowa, is awarded the Nobel Prize for developing high-yielding wheat varieties that save millions from starvation in third-world nations.



1970s

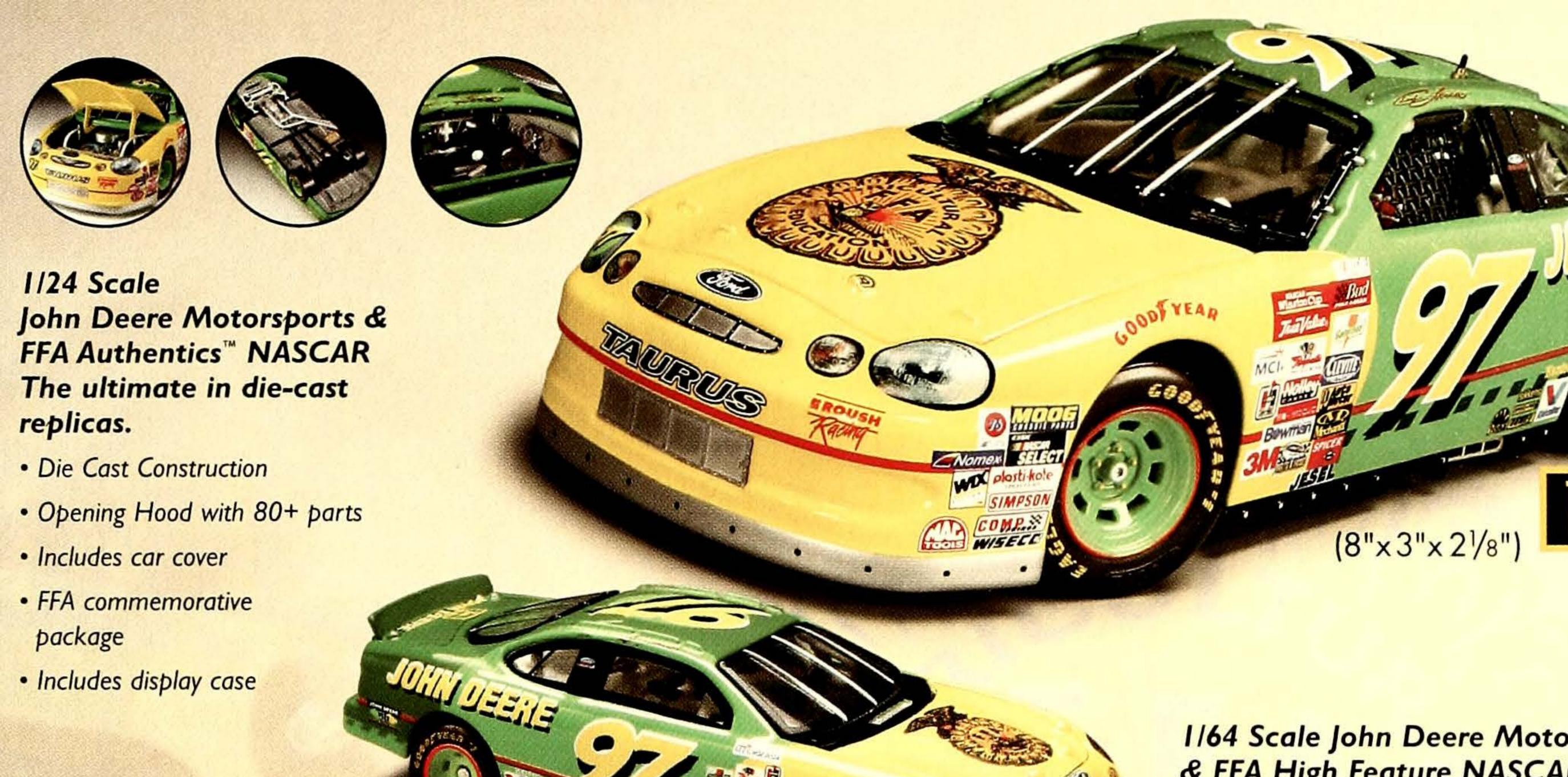
No-tillage agriculture popularized.

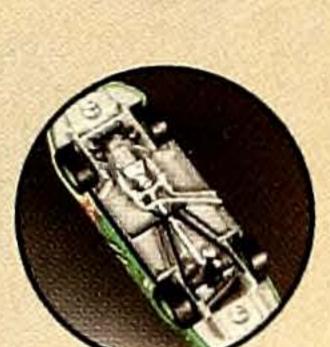
1990s

Biotechnology emerges as a viable technique for improving crop production.

A timeline of American agricultural history







www.ertltoys.com

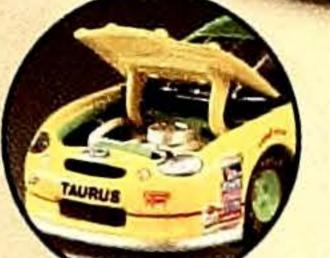
FOR ERTL USE ONLY

CUST# (U.S.) 10019205

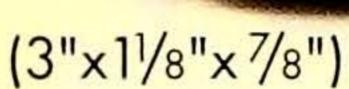
ORDER #











1/64 Scale John Deere Motorsports & FFA High Feature NASCAR

- Die Cast Construction
- Opening hood and trunk
- Display base with frame card
- Includes car cover

2000 FFA ORDER FORM

Makes a Great Gift



Stock #	Description	Units Ordered (1 per carton)	Each Price	Total Cost	
77013A	1/24 John Deere Race Car		\$59.95		
77014A	1/64 John Deere Race Car		\$ 9.99		

IA, NY, TX and IL Residents must add applicable State/Local taxes.

TAX

Shipping & Handling Per Order

\$5.00

TOTAL

-	yes a	2	20
Orde	erina	Instra	ections:

Limited quantities, available while supplies last.

ORDER DEADLINE: 15 DEC., 1999

DELIVERY DATE: March 2000

MAIL PAYMENT AND ORIGINAL ORDER FORM TO: (U.S.) THE ERTL COMPANY

P.O. BOX 500

HIGHWAYS 136 AND 20 DYERSVILLE, IOWA 52040

ATTN: JOHN DEERE PROGRAM

OE TYPE-R

USE STREET ADDRESS PLEASE SHIP TO: NAME STREET ADDRESS (NO P.O. BOX)

CITY STATE ZIP

BUSINESS PHONE HOME PHONE

PERSONAL CHECK ☐ VISA® ☐ MASTERCARD® MONEY ORDER

NO CASH PAYMENTS ACCEPTED

CARD HOLDER'S NAME

CREDIT CARD NUMBER

BILLING ADDRESS

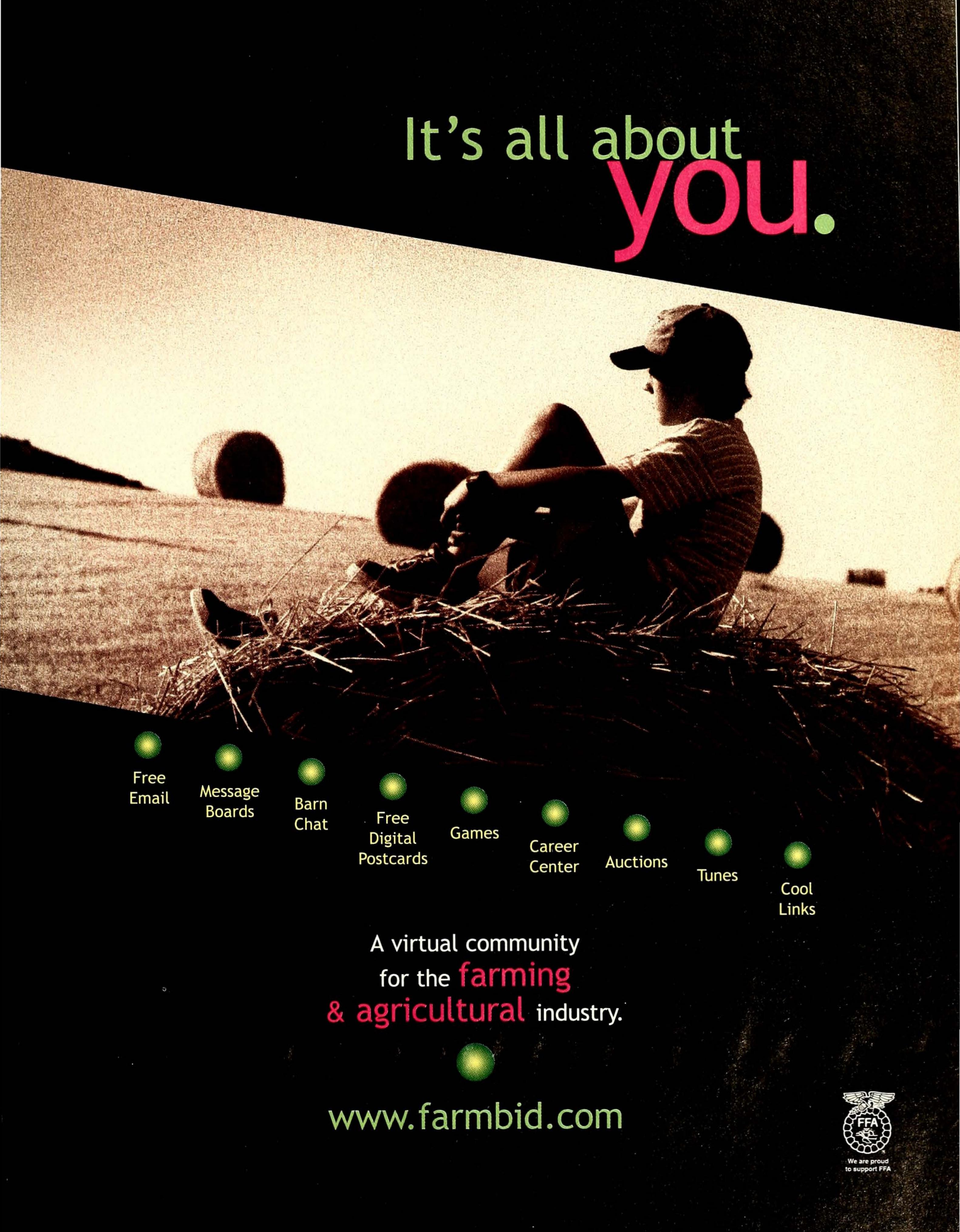
LAST NAME, FIRST REQ. SHIP DATE 03/01/00 199 DATE REC'D FREIGHT METHOD TERM CODE 03 TAX

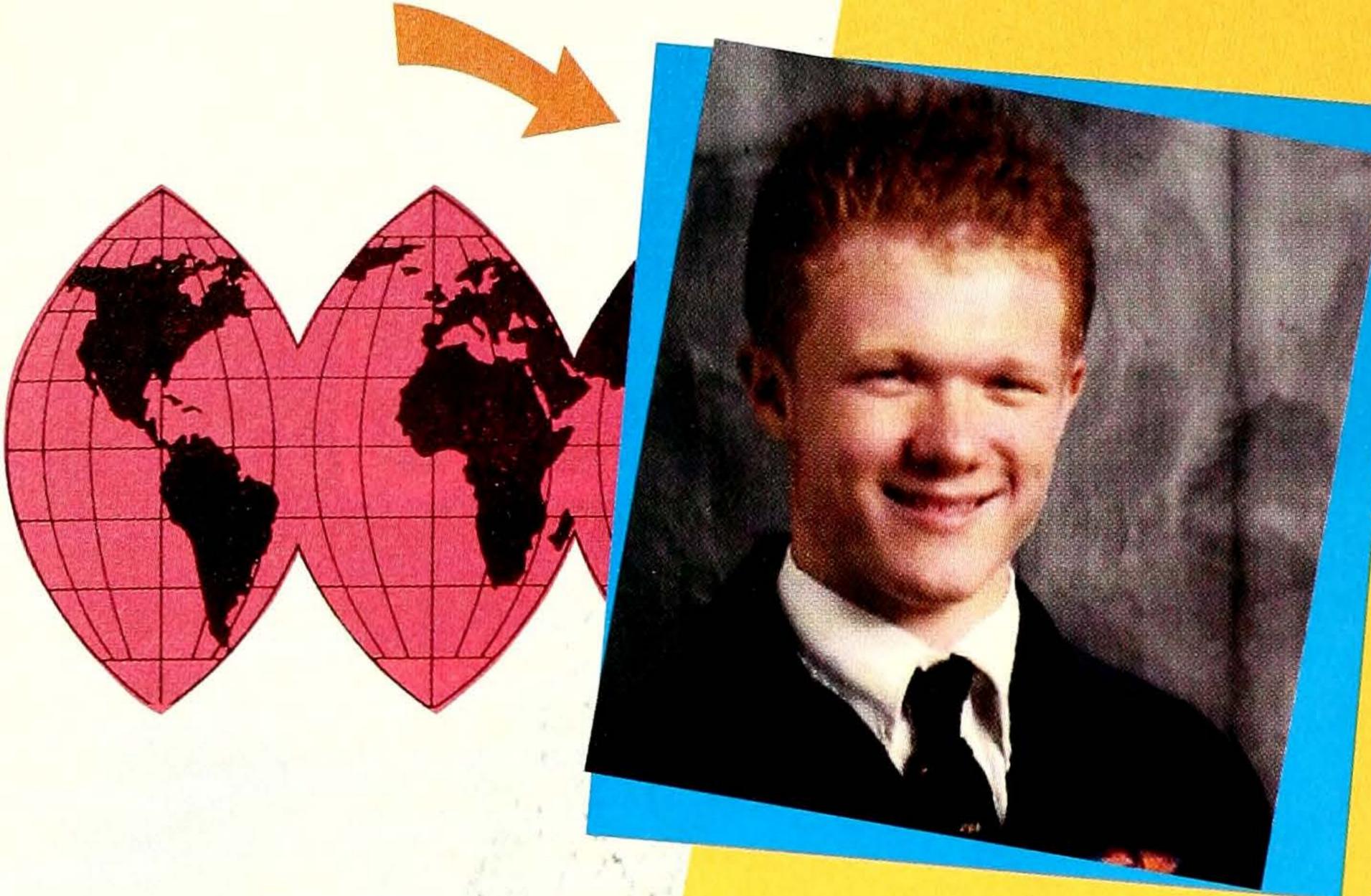
EXPIRATION DATE

AUTHORIZED SIGNATURE

ANY QUESTIONS REGARDING THIS PROGRAM PLEASE CALL: 1-319-875-5959



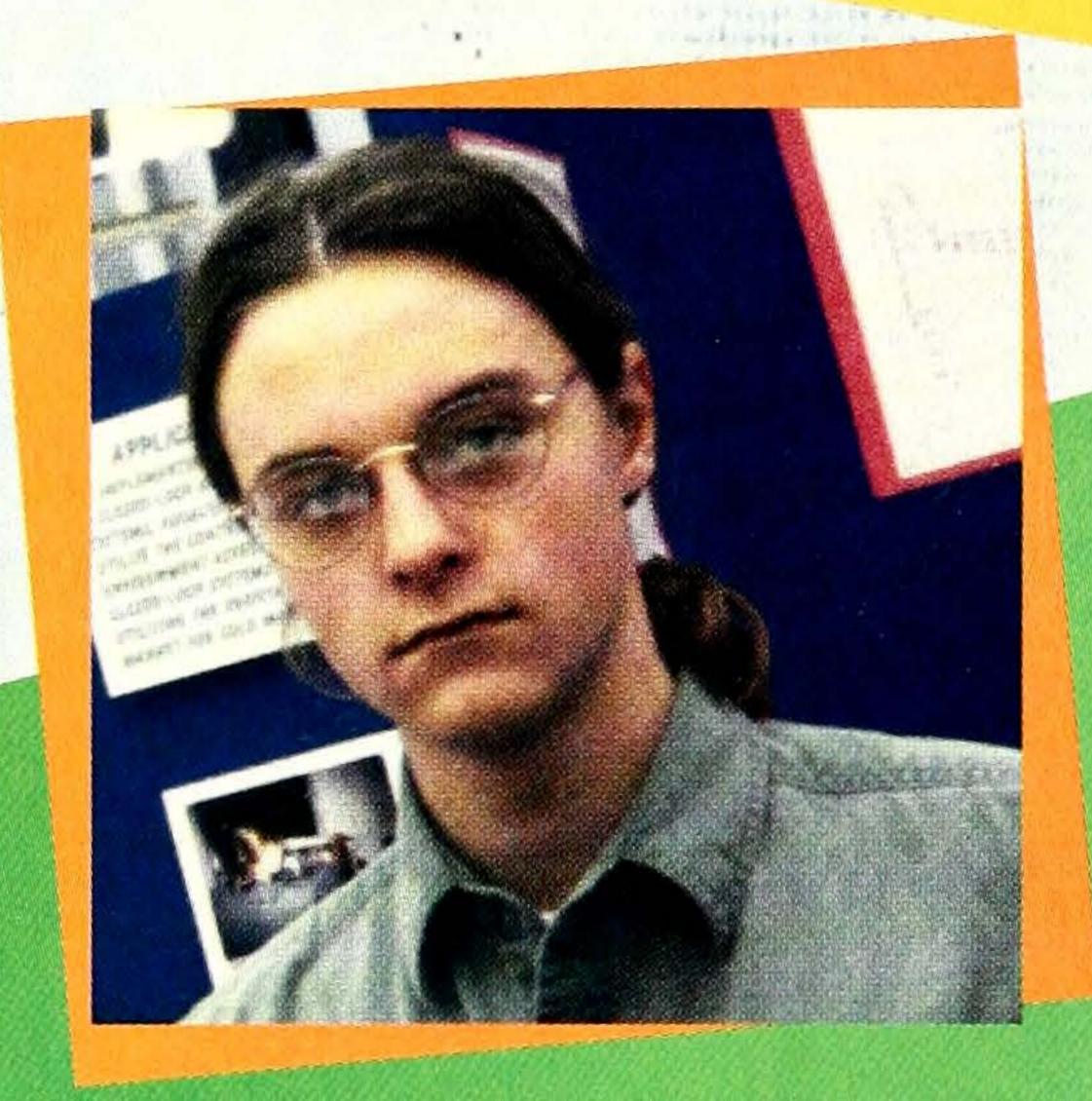




Justin Wade

West Carteret FFA Chapter Morehead City, North Carolina

If I had to choose one career in agriculture to pursue, international agricultural education would be it. I would leap at the chance to teach people in underdeveloped countries the farming techniques of the 21st century. For someone who loves to travel, learn new languages, and meet a diverse array of people, there's no better occupation. The technological age is creating more of a global community in need of people willing to make our ever-growing knowledge of agriculture available to all.



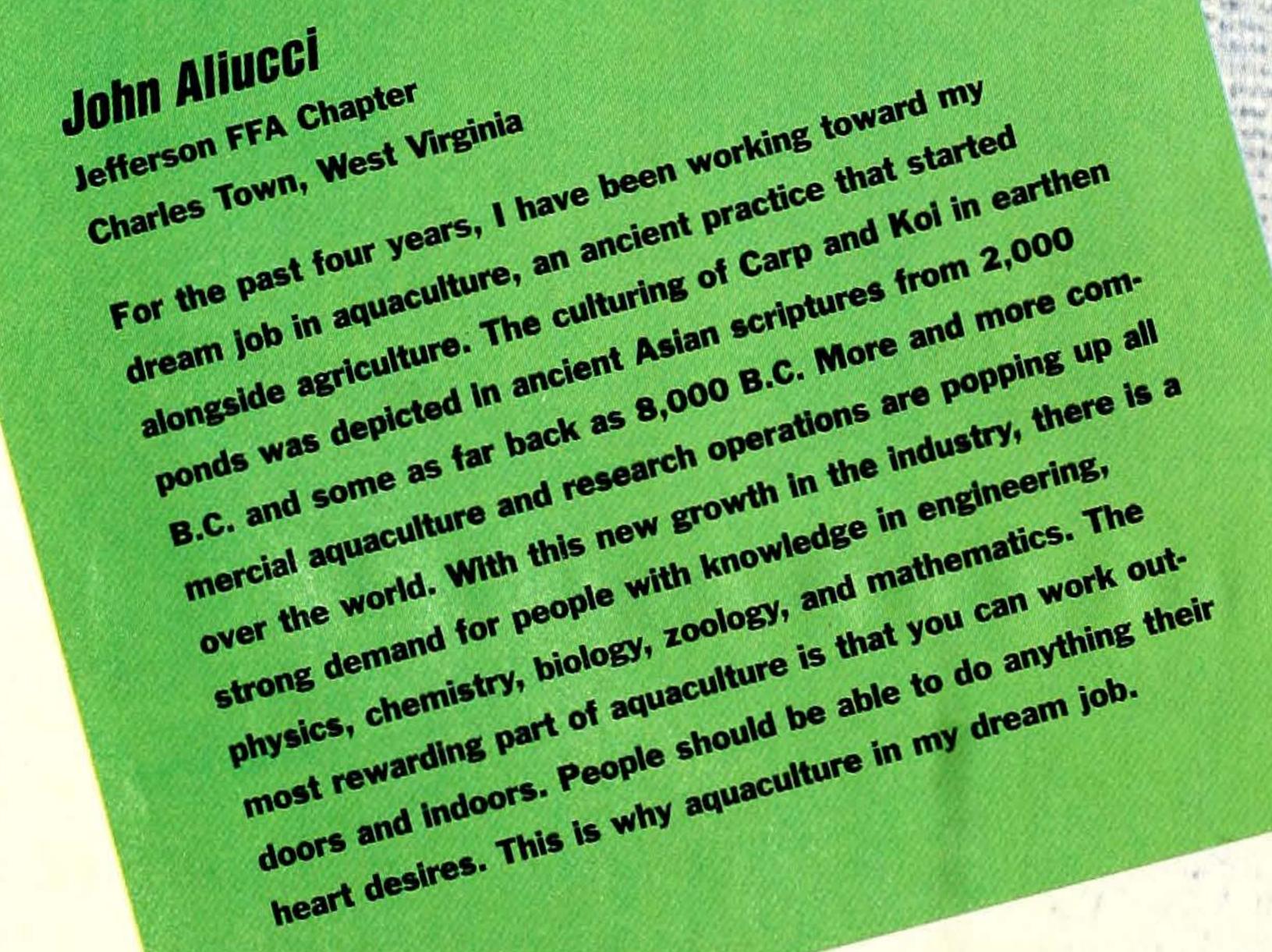
Jessica Cotton

CARLORS TRANSCRIPT TO A PROPERTY SET OF CARREST AND THE PARTY OF THE P

Hopkins County Central FFA Chapter Nortonville, Kentucky

Ever since I can remember, I have always wanted to touch a dolphin and work with them and other animals. So, for that reason, want to become a marine biologist. When I become a marine biologist, the first place I want to go is the Galapa-

gos Islands. That would be so neat because of some of those prehistoric-era animals. Well, see ya there!







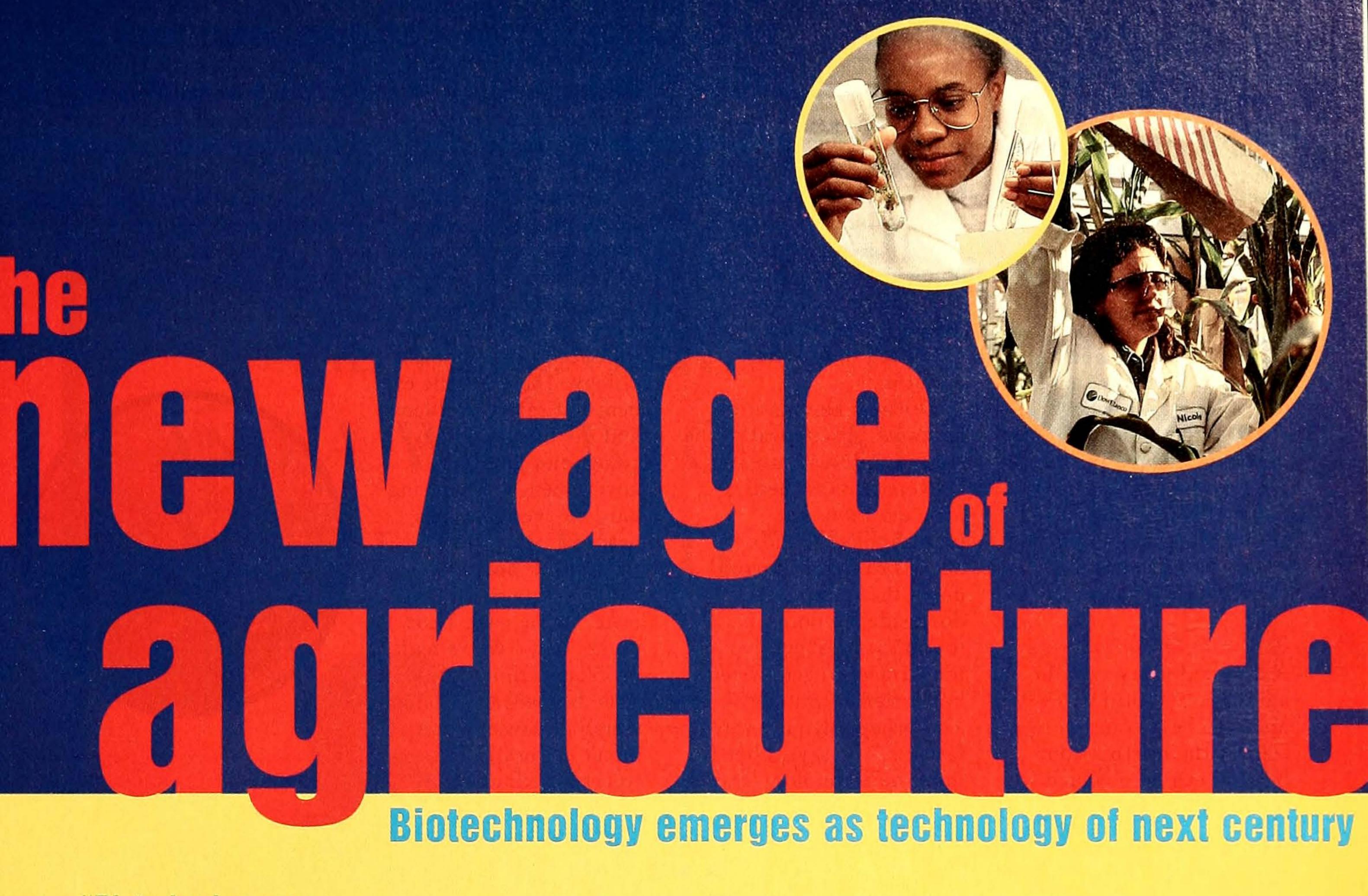
Teaturing the smash hit, BIGDEAL" along with a cool collection of buntry's biggest songs ON SATE NOW

Leann Rimes

Available at



www.curb.com



"Biotechnology can give us a quantum leap forward in food security by improving disease and pest resistance, increasing tolerance to environmental stress, raising crop yields and preserving plant and animal diversity."

Dan Glickman,

U.S. Secretary

of Agriculture



By Erich Gaukel

here is agriculture headed in the next 100, or even 1000, years? Nobody knows for sure. We can only make guesses based both on trends in the past and forecasts for the future.

Perhaps the most important thing to think about when pondering the future of agriculture is world population. In 1798, the English economist and mathematician Thomas Malthaus predicted that the world population would eventually grow faster than the earth's capacity to feed it.

While his prediction hasn't come true, many world agricultural experts are taking Malthaus's prediction seriously because the world's population could reach 10 billion another 50 years.

More with less

So, how do we feed twice as many people when prime agricultural land is being lost to growing cities and erosion? The solution hinges on a term that you may have heard a lot of in the news lately: biotechnology.

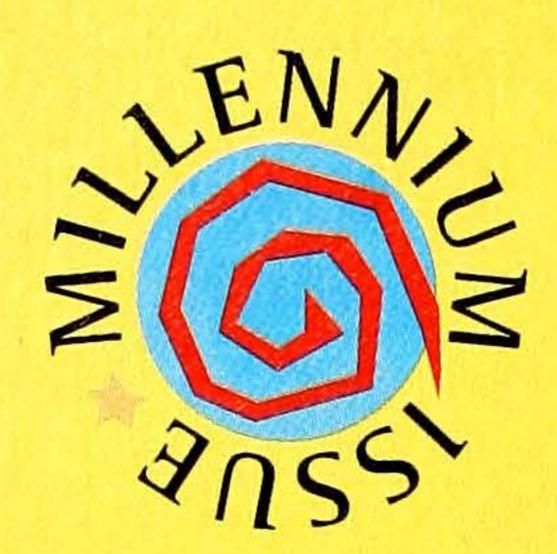
Now in its infancy, biotechnology will likely emerge as one of the most important technologies of the next century because the world will be able to grow more food more efficiently on less land.

Scientists use biotechnology to transfer desirable genes into crop plants. By doing so, they can design plants with such characteristics as tolerance for herbicides, protection against insects, protection against disease, higher producing yields and the ability to grow in dry or salty soils.

Merging technologies

Biotechnology cannot be successful without existing technologies, such as advanced plant breeding, integrated pest management, reduced- or no-till practices, precision farming with satellites, and innovative chemical technology.

When used together, these technologies are our best bet for meeting an increasing demand for food and an increasing concern about the environment. Ernest Jaworski, a leading biotechnology researcher with the Monsanto Company, was recently awarded the National Medal of Technology from President Clinton.



"It has been said," he explains, "that the next millennium will be the era of biology. I believe it will lead to solving problems of food security, food quality, environmental stability, life sustainability and the quality of life throughout the world."

Overcoming challenges

A hundred years ago, the agricultural world was about to be revolutionized by the internal combustion engine-powered tractor. Biotechnology

will likely revolutionize tomorrow's agricultural world.

Like the tractor did in its early stages of development, biotechnology is experiencing growing pains, particularly when in terms of implementing the technology and educating the public about it.

Douglas Hurt, a professor of agricultural history at Iowa State University, says there is little question that biotechnology will be needed to feed the world down the road. One downside, he notes, is that it's very expensive for farmers to get started in the new technology. "It's an opportunity for farmers," he says, "but I think biotechnology and the kind of productivity

that it's capable of achieving may make some farmers hardpressed to keep up."

The speed at which the technology has emerged has also caused alarm in Europe, where there are concerns about the safety of eating foods produced using biotechnology. There is little evidence of safety problems, and the biotechnology companies and the U.S. government are working hard to overcome this negative perception.

Another potential problem has to do with taste. In the past, Hurt points out, "We've had problems selling rice to Asia and wheat to China, simply because people aren't culturally adjusted to certain kinds of foods."

Biotechnology faces some big challenges in the next century, and it's up to tomorrow's leaders in agriculture to come up with the solutions. Those leaders of tomorrow, by the way, are today's FFA members.



A special thanks to Dow Agriscience for providing the photographs for this article.

The September/October issue of FFA New Horizons contained an advertisement featuring a pull-out poster of a female country music entertainer. It is clear that the photograph of the entertainer was deemed by some to be offensive and demeaning to women, and we sincerely apologize for the distress this has caused, particularly to our members, educators and parents.

I would like to point out that the National FFA Organization under no circumstances condones any communications—written or pictorial—that is counter productive to promoting ethnic, gender, geographic or religious diversity. Our publications, audiovisuals and events are intended to expand the reach of FFA and agricultural education to include underrepresented groups. It is our goal that the membership of FFA reflects the diverse demographic face of young people across the nation.

In working with the national staff, I am satisfied that the decision to run the advertisement represented an error in judgment rather than disregard of current policies and review procedures. Even so, I am working with our staff and the National FFA Board of Directors to reexamine the editorial and advertising policies of FFA New Horizons to determine if they can be strengthened with regard to our treatment of diversity issues. At a minimum, we will rededicate ourselves to maintaining the high standards of equality and fairness that have been in place for many years. With your support, the National FFA Organization will continue to serve agriculture and future generations of the nation's youth.

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION (Required by 39 U.S.C. 3685)

- Title of publication: FFA New Horizons
- Publication number: 1069-806X
- Date of filing: October 30, 1999 Frequency of issue: Bi-Monthly
- Number of Issues published annually: 6
- Annual subscription price: \$5.00
- Complete mailing address of known office of publication: National FFA Organization, 6060 FFA Drive, Indianapolis, IN 46268
- Complete mailing address of the headquarters of general business offices of the publishers: National FFA Organization, 6060 FFA Drive, Indianapolis, IN 46268-0960
- Full names and complete mailing address of publisher, editor, and managing editor: Publisher, David Doerfert, Natinal FFA Organization, 6060 FFA Drive, Indianapolis, IN 46268-0960; Executive Editors: Erich Gaukel, Farm Progress Companies, 191 S. Gary Ave., Carol Stream, IL 60188-2095; Managing editor, none
- 10. Owner: (If owned by a corporation, its name and address must be stated and also immediately there under the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address as well as that of each individual must be given. If the publication is published by a nonprofit organization, its name and address must be stated.) The National FFA Organization, 6060 FFA Drive, Indianapolis, IN 46268-0960
- 11. Known bondholders, mortgages, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities: None
- Not applicable.
- 13 FFA New Horizons

15. Extent and nature of circulation:

Average no.	Actual no.
of copies	of copies
each	of single
issue	issue
during	published
preceding	nearest to
12 months	filing date

- A. Total number of copies (net press run) 452,113 503,234
- B. Paid and/or requested circulation 1. Sales through dealers and carriers,
- street vendors and counter sales 46,474 50,422 2. Mail subscriptions (paid and/or
- requested) 387,093 389,052
- C. Total paid and/or requested circulation (sum of 10B1 and 10B2) 439,474 433,567
- D. Free distribution by mail, carrier or other means, samples, complimentary and other free copies 765
- E. Free distribution outside the mail
- F. Total free distribution (sum of D and E)
- G. Total distribution (sum of C and F) 434,320 440,239
- H. Copies not distributed
 - 1. Office use, left over, unaccounted, spoiled after printing 62,995 17,793
 - 2. Return from news agents None
- None Total (sum of G, H1 and H2) 452,113 503,234 Percent paid and/or requested
- circulation 99.8% 16. This statement of ownership will be printed in the Nov/Dec 1999 issue of this publication.

99.8%

17. I certify that the statements made by me above are correct and complete.

Now, FarmPage.com Offers You Weather, Commodities, News, Entertainment, And A Way To Cut \$1,000 Off Next Year's Tuition Bill!

Between now and January 31, 2000, you can earn a \$1,000 scholarship from FarmPage.com. It's simple. Give us your predictions on the greatest farming challenges in the new millennium... and, how you would face them. E-mail your entry to contest@FarmPage.com; or mail it to FarmPage.com; 9905 Bastian Road; Waterman, IL 60556, by January 31, 2000.

For the latest ag information (that you might need for your essay), check out FarmPage.com. It is the hottest place to find ag weather, news, commodities, the "First Look" grain forecasting newsletter, the "Livestock Arena" newsletter and more.

You even have the chance to see Max Armstrong's Farmall's. In fact, Max is looking for pictures of your tractor restoration, championship livestock, chapter projects or a local hero for his "Hall of Fame Page." He's anxious to hear from you.

Send your essay; or entry for the "Hall of Fame" to the address above.

FarmPage.com

The Best Ag Resource



The rat and the mouse

Ever feel like you need three hands when you're on the computer—two for typing and one for controlling your mouse? Well, help is on the way. Robert J. Thompson, an entrepreneur in Pacific, Missouri, has come up with FootRat, a mouse you control with your foot. Other pedals and software are also available. Available for \$29.95 at www.touchtime.com



(C Pen.

Jad gets of tomorrow

Look mom, no hands!

If the Jetsons had a yard, you would have seen this invention already. It's called Robomow, and—you guessed it—it mows your lawn for you. Robomow runs on two 12-volt batteries, enough power to cut to a 9,000 square-foot lawn. All you have to do is set up a special wire around the perimeter of the yard and any obstacles. Robomow does the rest. Mowing will never be the same. Available from friendly machines: www.friendlymachines.com

Stuff you may find yourself using—in the near future.

Batteries not included . . .

Pocket trainer

Having a personal trainer for your workout would be great, right? Now you can have one that fits in the palm of your hand. You create a fitness routine on your regular computer, then download it into the Digital Training Assistant, which tracks and

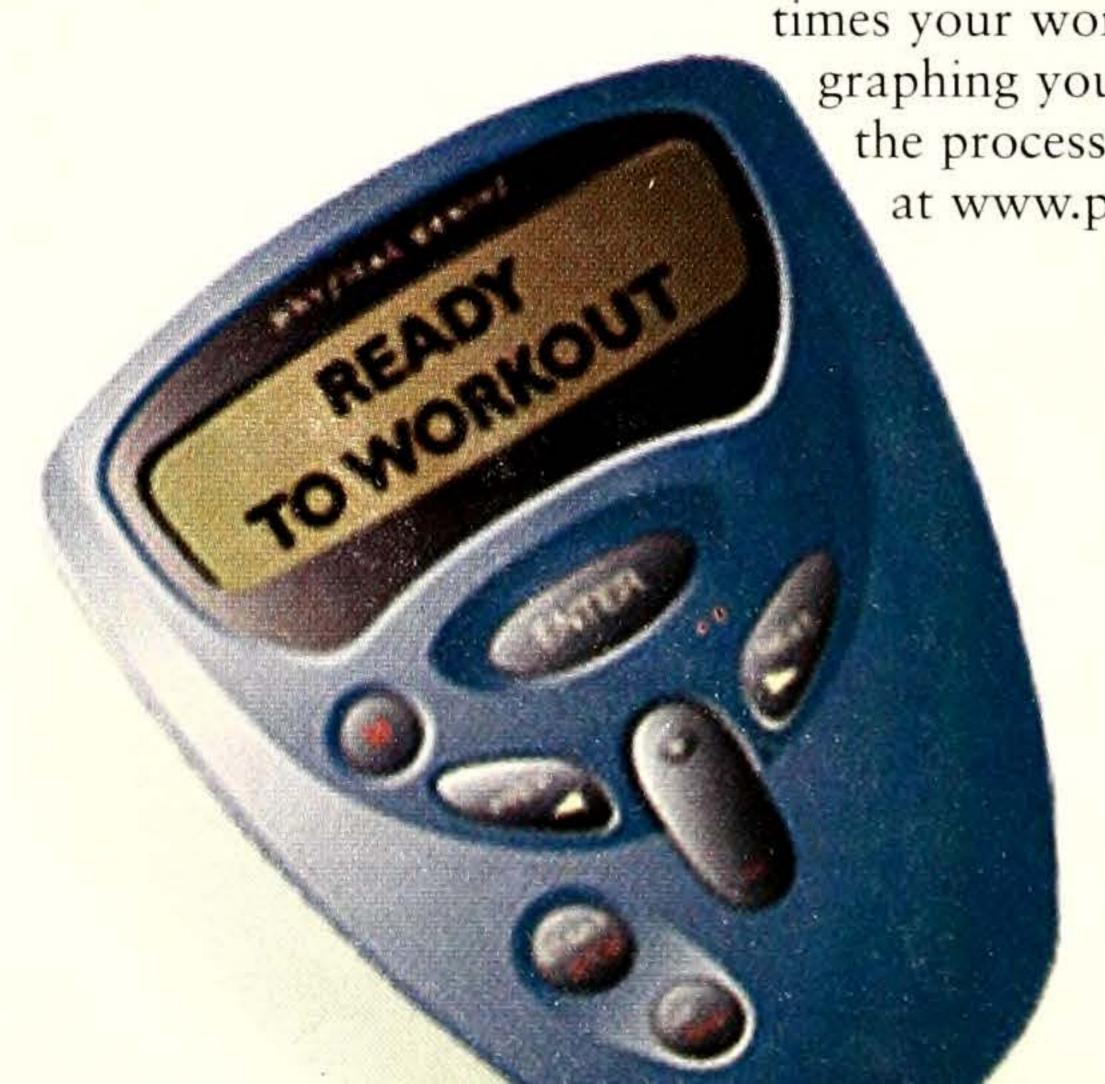
graphing your workout data in the process. Available for \$250 at www.physicalgenius.com



Highlighting with yellow highlighters can get messy—just try to keep your hands from turning yellow. Now, with the C Pen, your highlighter is not a marker, but a scanner that reads and stores the highlighted text. The information can then be transmitted to your computer. The C Pen can even record handwritten words as you write them. Available for \$200 from www.cpen.com



The e.com, a prototype commuter vehicle by Toyota, can run for 60 miles on its nickel-metal-hydride battery pack. Even more interesting is the fact that this vehicle has "regenerative braking," which means that the energy of the wheels turning is captured and used to power the car. The car has not yet been put on the assembly line, but will probably fetch a price of around \$10,000.



Change the world one student at a time



Teach Ag Ed



The National FFA Organization

FFA Homepage: www.ffa.org

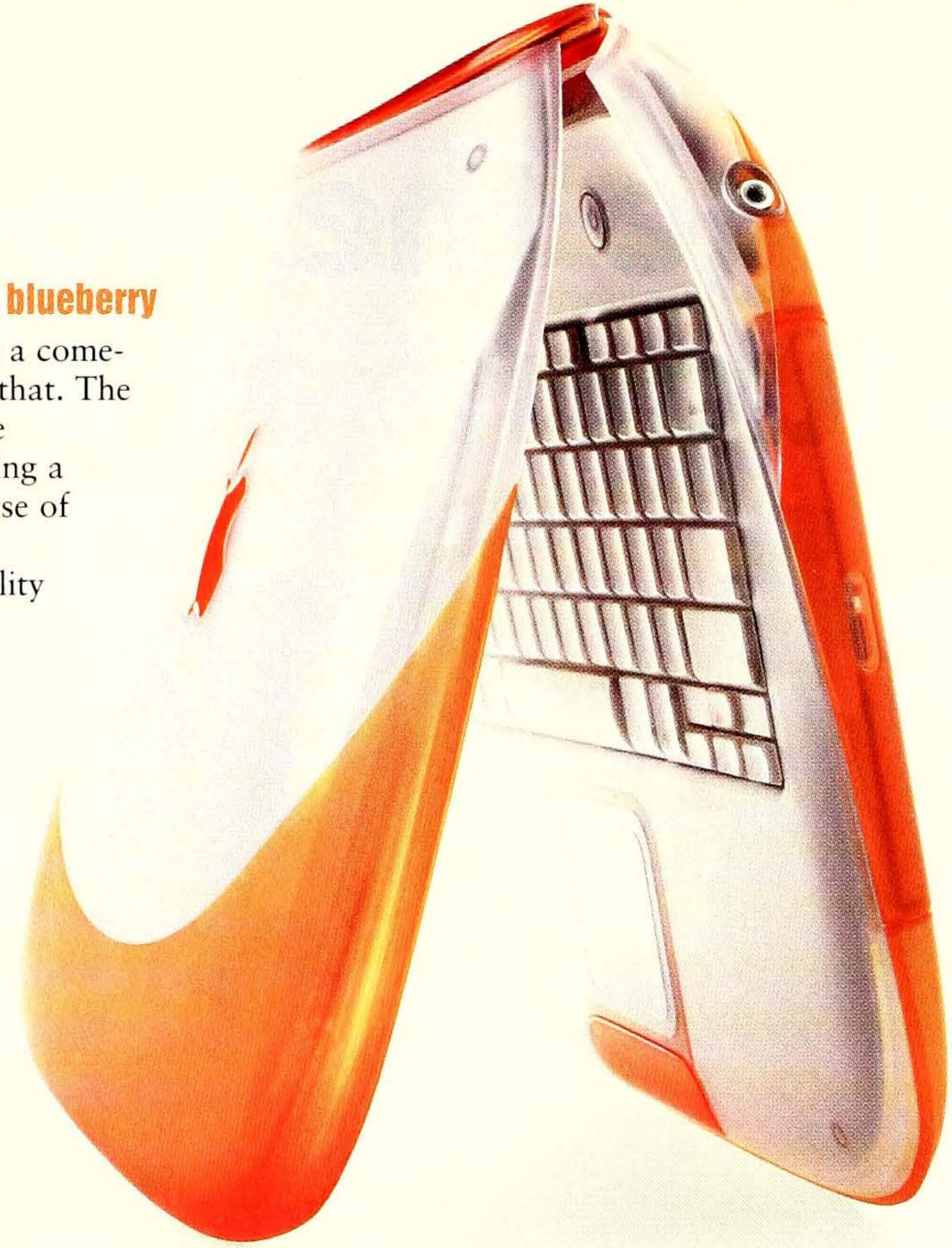
©1999 National FFA Organization

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education. The mission of Agricultural Education is to prepare and support individuals for careers, build awareness and develop leadership for the food, fiber and natural resource systems. The National FFA Organization affirms its belief in the value of all human beings and seeks diversity in its membership, leadership and staff as an equal opportunity employer. Produced by the National FFA Organization in cooperation with the U.S. Department of Education as a service to state and local agricultural education agencies. Sponsored by the Monsanto Company as a special project of the National FFA Foundation.



Computers in tangerine or blueberry

Apple computers are making a comeback—and a colorful one at that. The iBook, which just entered the market in September, is making a splash with consumers because of its unconventional colors, its curvilinear design and its ability to make wireless Internet connections. It's also loaded with all the standard hardware, such as a 56K modem, 6-hour battery and 32-MHz processor. Available for around \$1,600.



Mind games

Okay, so you can't find 18 friends for a pick-up game of baseball. You can hold your own game with Virtual Reality World. The slip-on headset has a 3-D display that gives you a full range of vision on the field. The bat, equipped with motion sensors, allows you to swing freely. Other games include golf, boxing, and fishing. Available for \$30 from Manley Toy Quest, 200 5th Ave., New York, NY 10010.

TV for me—and me alone

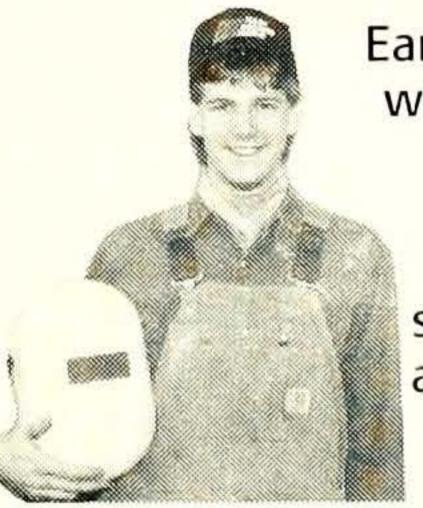
You never know when you're going to need to tune in for the ballgame or your favorite drama, so check out the Sony FDL-250T Watchman. Unlike most tiny TVs, this one has a built in sun-shade, which makes outdoor viewing easier. It is also equipped with a straptenna, clamshell design, speaker and headphone jack. Log on to www.sony.com for more information.

The weather is now in your hands

Tired of waiting for the weather person to come on the TV or radio. Wait no longer. With the Kestrel 3000 Pocket Weather Meter, it's all in your hands. With a simple stretch of the arm, you can find out the dew point, temperature, relative humidity, wind speed and heat stress index. It's easy to use with just two buttons and easy-to-read display. Available for \$159 from Nielsen-Kellerman (800) 784-4221.



Become a Professional Welder!



Earn good money
with a rewarding
career. High
School grads
attend from 23
states. Financial
aid for qualified
students. Lic.
by OBPVS

Aaron C. Leier, FFA-North Dakota

Seniors call for free Welding Video: 1-800-WELD PRO

TULSA WELDING SCHOOL

3038 Southwest Blvd. Tulsa, Oklahoma 74107

L TO R: ARIAT 6" CASCADE", ARIAT SIERRA",
ARIAT 8" CASCADE" & ARIAT TAHOE"





LOOIS of the Tade

You depend on the right tool for the job. For exceptional comfort and durability, you can depend on Ariat Workhorse.

Ariat boots are designed to feel good and wear tough. Workhorse boots are crafted with only the finest water-resistant leathers that conform to, and cradle your foot. The Ariat ATS™ footbed significantly absorbs shock, reducing stress on your lower back and legs, while a carbon-fiber shank prevents roll-over. The non-porous,

oil and slip-resistant Duratread™ outsole lasts up to three times longer than ordinary outsoles. For the ultimate in protection, Workhorse boots are also available in steel toe versions.

Step into boots designed to work as hard as you do, day in and day out. Step into Ariat Workhorse.

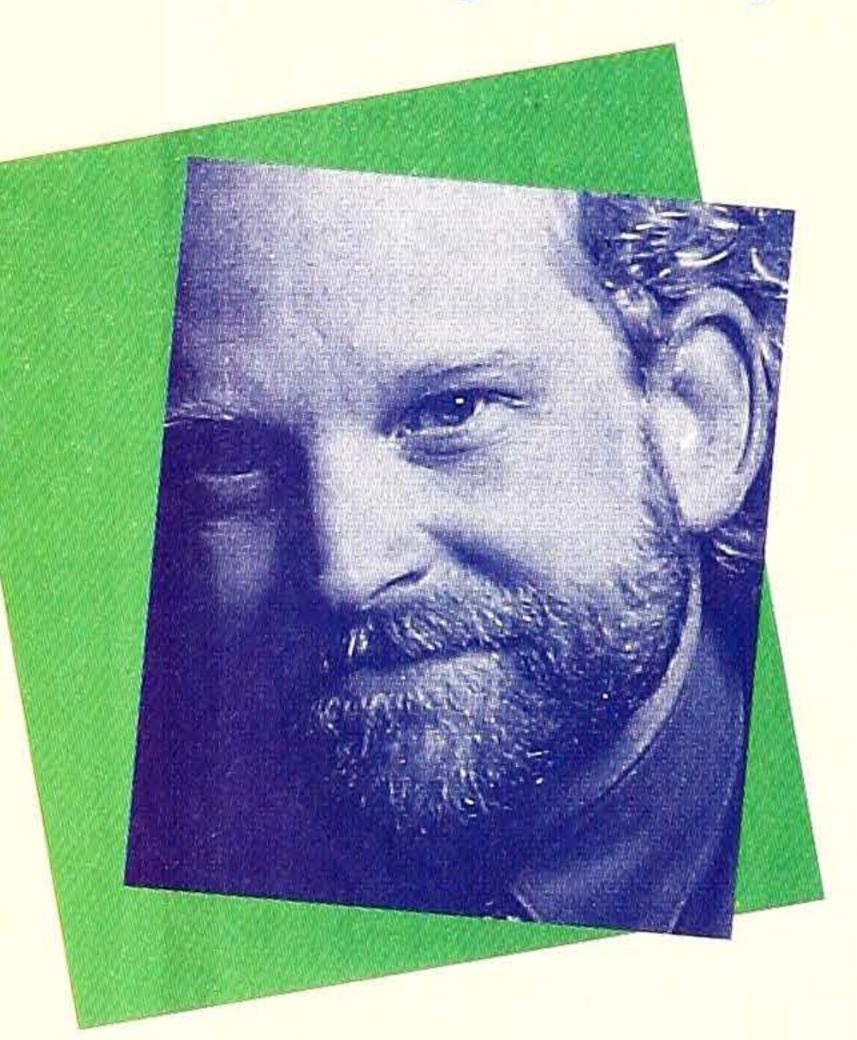
ARIAT ATS" WORKHORSE SYSTEM



FAnewhorizons

Tomorrow is history

A look beyond the year 2000 with futurist Watts Wacker



e wanted to get a firsthand look at the future, so we turned to futurist Watts Wacker. While he's never physically traveled to the future, Wacker's mind is already there. As the CEO of FirstMatter, Wacker studies social, economic, political and technological change and applies what he's learned to forecasting the future for such clients as Nike, General Motors, Mattel and Sony, as they prepare to compete in the expanding world markets that await them in the next millennium. We caught up with Wacker on the phone to talk about teens, agriculture and the future.

What does a futurist actually do?

The Oxford dictionary will tell you that a futurist studies the human condition, or what the Germans call the "Zeitgeist." It would also tell you that a futurist studies the dynamics of change or the way change changes. I also think a futurist has to provoke

you and give you some sense of vista, a place from which to look over a wide expanse.

Tell me about your "undercover" observational work and why you do it.

The idea of observational work for futuring is to allow yourself to look at the world from a perspective other than your traditional one. I have bused tables at Taco Bell, made donuts for Krispy Kreme, driven a bus for Avis, and worked as a baggage handler for British Airways. I think it was the Apostle Paul who said that only those who serve can be served.

When the world's odometer hits 2000, what's going to happen?

The story I like most is the one H.G. Wells wrote a hundred years ago. He wrote very eloquently about how people tried to stop time. The derivation of the New Year's celebration that we live with today is from a hundred years ago. People in 1899 thought that the world was going to end at the stroke of midnight on January 1, 1900. So, they had the party to beat all parties, and as soon as they realized the world wasn't going to end, they became much more open to change. So, it was kind of like trying to stop time, and then saying, "Oh, let's get on with it." I think we'll see

the same kind of thing happen in 2000. There will be an incredible uptick to the recognition of how different the world really is, and how differently we need to think about things.

Where is agriculture headed in the future?

Several of the things that we'll be paying attention to will clearly have to do with genetically altered foods being driven through our food supply. Prince Charles once told me he'd never let genetically altered food touch his lips. I said, "You lose." Probably anywhere from 20 to 40 percent of most food has had some—even if it's remote—touching of a genetically engineered experience. With that, I think you'll see much more segmentation when it comes to the classification of foods on the supermarket shelves. I think water is also something that we'll really be paying attention to because we're really only ten years away from 40 percent of world having uninhabitable drinking water.

How will today's young people play a role in the future of agriculture?

Today's teenagers are the

Today's teenagers are the generation that will get to renew the vision of the future of agriculture—how it's done and where it's done. It just doesn't make sense to pay people



not to grow, or to pay people to grow things that we really don't want. I think we'll actually see momentum made in the renewal of the vision of how the U.S. Department of Agriculture is going to work in the future—or, for that matter, how the World Agricultural Congress, or whatever it might be called, will work in the future.

How will the information age affect the agricultural industry?

A metaphor I like to use is the Official Airline Guide [the industry standard for airline schedules], which makes more money than all the domestic air carriers combined. This means that the value of the information about a transaction may eclipse the value of the goods or services being transacted. Part of the future for the agricultural industry is not in the food, but in the information about the food.

If you, as a corporation like Beatrice, ConAgra or ADM, are able to help me manage the food information in my personal life, then you can make more money from that than you can from the conventional food chain of growing, producing, distributing and packaging. This concept is based on a company helping you to know more about things you already like.



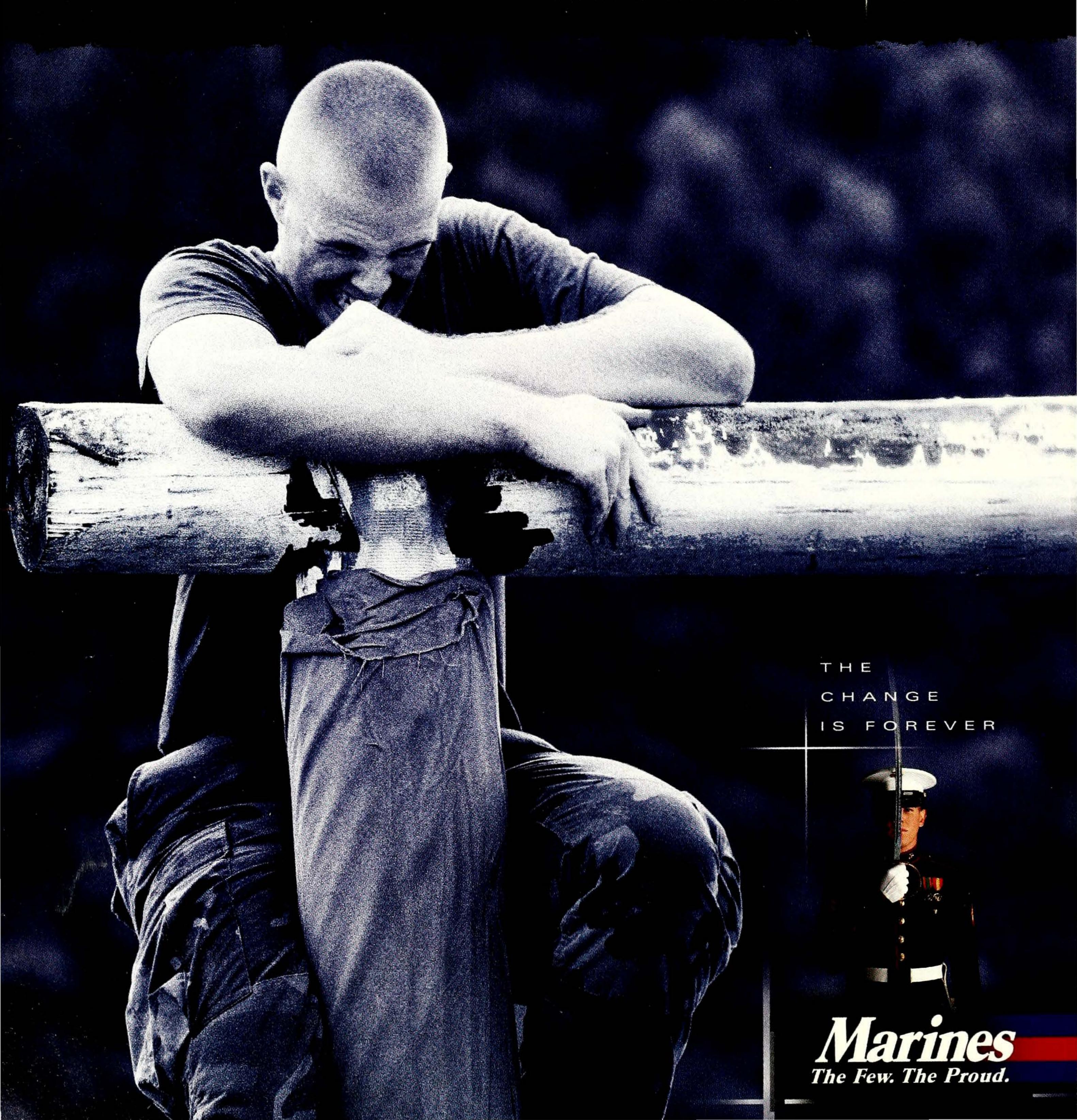
PAIN IS WEAKNESS LEAVING THE BODY.

THE OUTSTION ISN'T HOW MUCH MORE CAN YOU TAKE BUT HOW MUCH MORE CAN YOU GIVE JUST WHEN YOU'RE READY TO QUIT, YOUR MIND SAYS PUSH HARDER YOU LISTEN SENSING AN INNER STRENGTH THAT WASN'T THERE BEFORE. AND SUDDENLY YOU DISCOVER YOU NO LONGER FEEL THE PAIN.

NOW YOU'RE ONE OF US.

1-800 MARINES

W W W . M A R I N E S . C O M





Another analogy is the National Football League. When the networks paid the NFL for broadcast rights, they paid more money than it would have cost them to buy every team in the league. The nature of what constitutes value is moving from markets to intellectual property. So the issue of the intellectual property associated with things that have to do with food will be a huge issue. It's the ability to let someone know which recipes they make most often, and which are the most well

That kind of stuff has value that the consumer will pay for.

You once gave a bunch of teenagers cameras to take pictures of their lives.
What did those pictures tell you about what makes teens tick?

I learned that this is the first time in history that teenagers have knowledge that their parents wish they had. This is the first time you see adults go to their kids for guidance, advice, knowledge and wisdom. I learned that this role is well deserved. What I also learned is that this role causes great trepidation among teens. One of the reasons that we've seen these manifestations of kids killing kids is that we're asking them to grow up too quickly. If

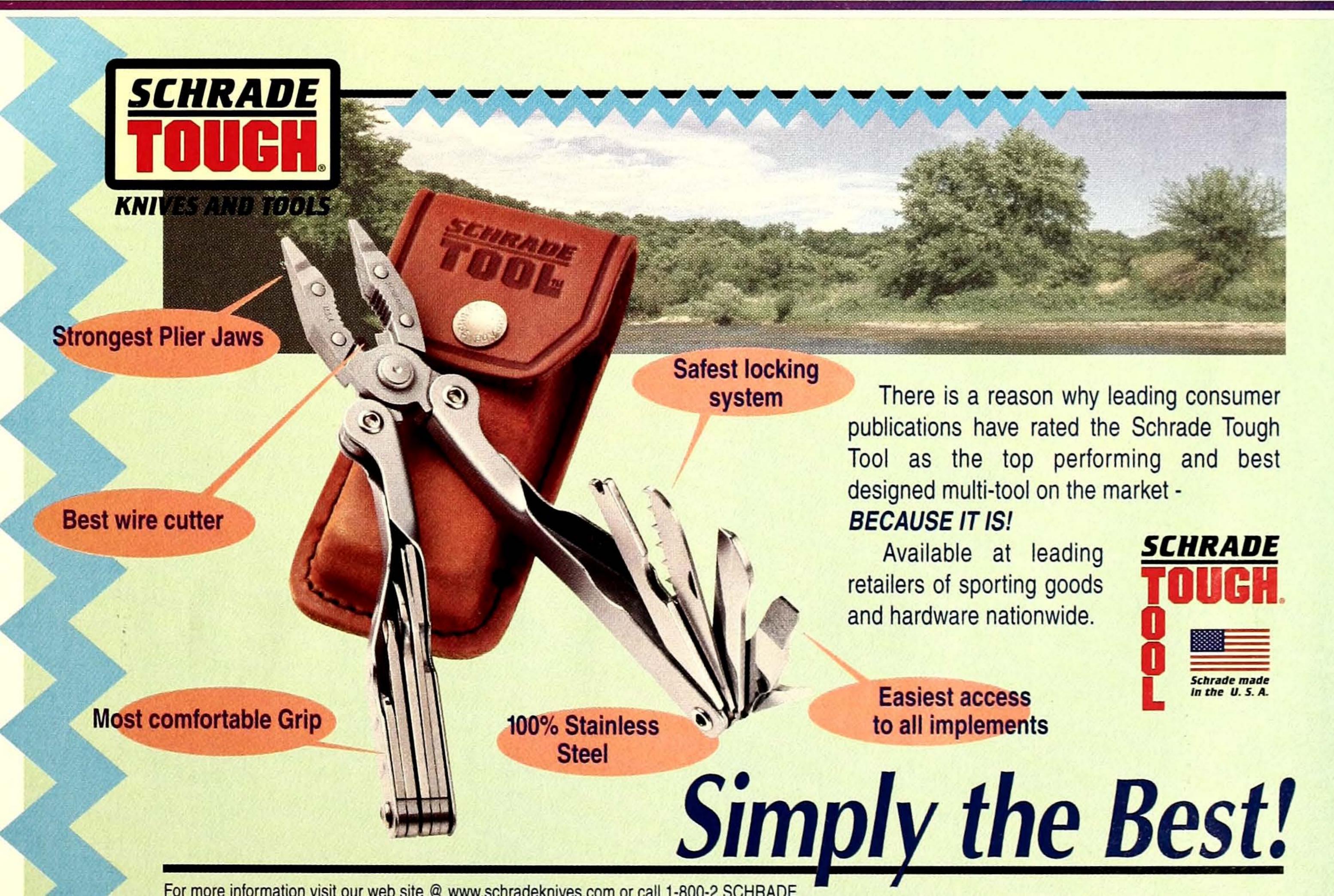
I was giving advice to kids, I would tell them the same thing I tell my junior in high school—keep playing with those Lego blocks. You have your whole life to grow up.

Do you want to make any predictions?

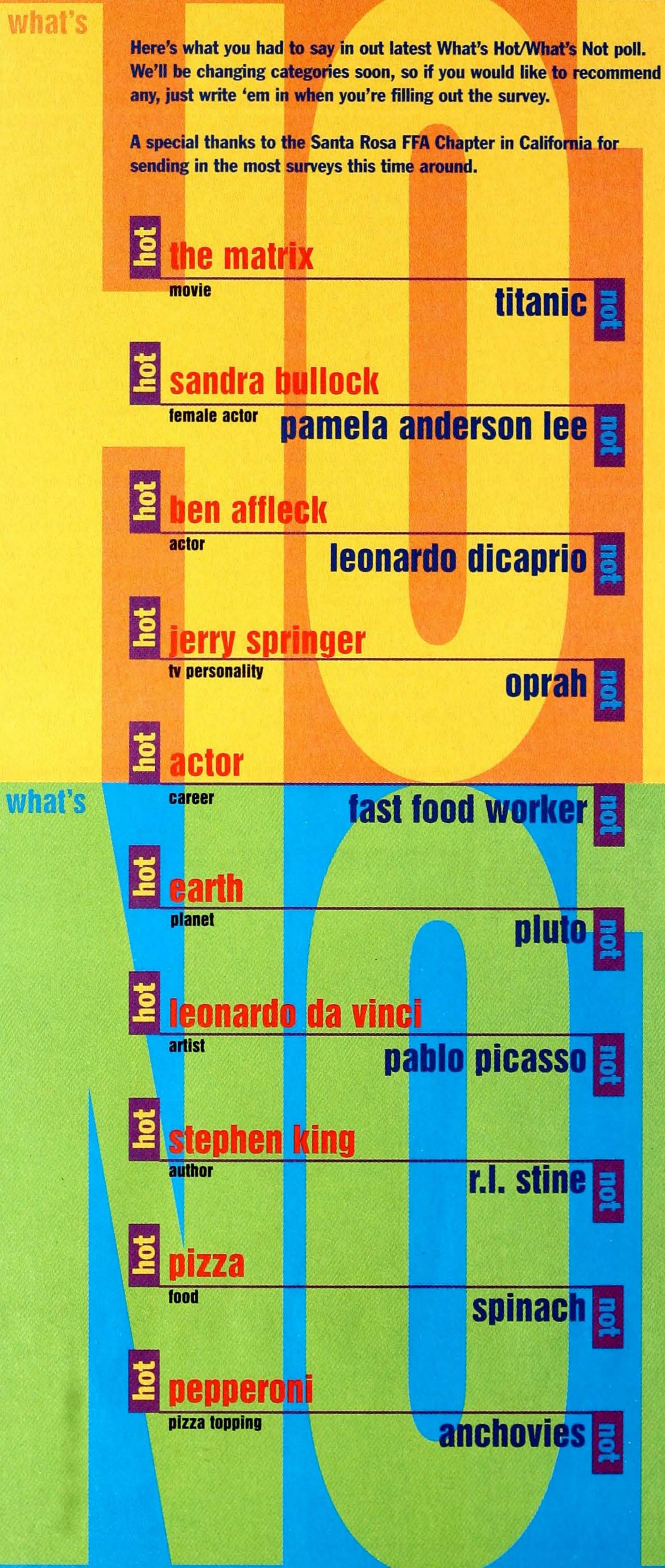
I'm pretty convinced that my nine-year-old daughter is going to live to be 200. I don't think there's any doubt about it. One of the delicious thing about being a futurist is that a lot of the things that people take as science fiction are actually a reality today, they're just not scalable yet. The movie "Total Recall" is already done in the physics. Everything about your life I can capture, chronicle, store and recall. One of the great areas of the

future will be the ability recapture, at any point in time you want, the feeling of internal goodness associated with any food you've ever eaten. You'll literally be able to go to a restaurant and order, based on a concrete cognitive knowledge of which foods make you feel better. I don't think that's more than five years away.





	hot	
Movie		
Female act		
Male actor		
Website		
	ality	
		BENEROW OF THE PERSON OF
Artist		
	am in '99	
Pizza toppi		
what's		
Movie		
Female act	or_	
Male actor		
Website		
TV persona	ality	
Career		
Season		
Planet		
Author		
Food		
Artist		
Football te	am in '99	
Pizza toppi	ng	
cend	FFA New H	orizons
vour	What's Ho	CONTRACTOR OF THE PROPERTY OF
picks	P.O. Box Indianapo	
to:	46268-09	960
Name		
Address		
City/Town_		
State		
Zip		
Phone		
Chapter		





AND NOW...Tell Us How You Conquered Your Risk.

Commander Risk advises each of YOU to apply risk management techniques to your supervised agricultural experience (SAE). If you do this, the Commander is prepared to reward your hard work through the National FFA Organization's Risk Management Essay Contest, sponsored by the Risk Management Agency of the U.S. Department of Agriculture.

That's right, YOU could win a trip to Washington D.C., How do you do it? Simply write a 500-word essay on "Risk Management Strategies for your SAE" and submit it to the National FFA Center. All entries must be postmarked by January 31, 2000.

The Commander will then select 10 lucky winners who will receive an all-expense paid trip to Washington, D.C., for themselves and their advisors. You'll never get a better chance to meet with the top U.S. Department of Agriculture officials and to tour our Nation's capital.

For a resource guide and contest rules, ask your advisor or call the National FFA Organization at 317.802.4252. For more information, check out *National FFA Online* at www.ffa.org.

Enter now! And stay tuned to see Miss Manage meet her match!

This contest is offered by the National FFA Organization in cooperation with the National Council for Agricultural Education and with funding from the Risk Management Agency of the U.S. Department of Agriculture as a special project of the National FFA Foundation.









It's easy to tell Dodge Dakota from other standard compact pickups. First, there's that distinctive grille that says this truck is every inch a Dodge. Second, Dakota's just plain bigger — with more interior room, a bigger bed, a wider track, and a longer wheelbase than anything in its class. What really sets Dakota apart, though, is its choice of available Magnum® V-8 engines: a 250-horsepower Magnum 5.9L V-8, or the new Next Generation 4.7L Magnum V-8, with best-in-class payload, torque, and towing.* And here's icing on the

cake: J.D. Power and Associates ranked Dodge Dakota as the "Best Compact Pickup in Initial Quality."** So if what you want is a little more of everything, don't say "compact." Say "Dakota." There's a big, big difference.



800-4-A-DODGE or www.4adodge.com



Q: Why don't pigs tan?
A: Because of their pigment.

MollyRyel

Drummond, Oklahoma

Q: What did the baby snake do when he didn't get his way?

A: He threw a hissy fit.

April Vallancourt

Wetumpka, Alabama

Q: What is dangerous about living for seven days on a can of sardines?

A: You might fall off.

ShaunAutry

Mount Pleasant, Tennessee

Q: What does a banana peel on the sidewalk have to do with music?
A: If you don't C-sharp, you will B-flat.

Jenica Schaefer

Hope, Indiana

Q: Why does Santa Claus have a garden?

A: So he can Ho, Ho, Ho!

TrentMcLaughlin

Garden City, Kansas

Q: How do you find King Arthur in the dark?

A: With a knight light.

MeganShisler

Albany, Missouri

Q: What's a cow's favorite part of a car?

A: The steering wheel.

Jessica Taylor

Copperas Cove, Texas

Q: Is there any word that has every vowel (and sometimes y) in it?

A: Unquestionably.

EugeneAnthony

Camden, Alabama

Q: Where can you find an ocean without water?

A: On a map.

EliPowell

Hickman, Kentucky

Q: What is the similarity between a pancake and baseball?

A: They both depend on the batter.

EddieMcGee

Chiefland, Florida

Q: What do farmers and brokers have in common? A: They both have a lot invested in their stock.

StaceyStearns

Storrs, Connecticut

Q: What is the hardest part about skydiving?
A: The ground.

KatieMorris

Boone, North Carolina

Q: Why do grizzly bears have so much hair?

A: To cover their bear spots.

Jennifer Downen

Altus, Oklahoma

\$5 for each joke selected for Last Laff. In case we receive more than one of the same joke, payment will be for the first one received. Contributions cannot be acknowledged or returned.

Address your jokes to:

Last Laff FFA New Horizons P.O. Box 68960 Indianapolis, IN 46268-0960

The next issue of FFA New Horizons hits the streets in late January.

Shop for FFA merchandise online www.ffaunlimited.org



Agrinuts by Jim Bradshaw and Michael Bettendorf



COUNTRY
COUNTRY
INTUSIC
FROM
A MAN WHO
LIOLIDS IT
CLOSE TO HIS
HEART.

13300CM

TO CON

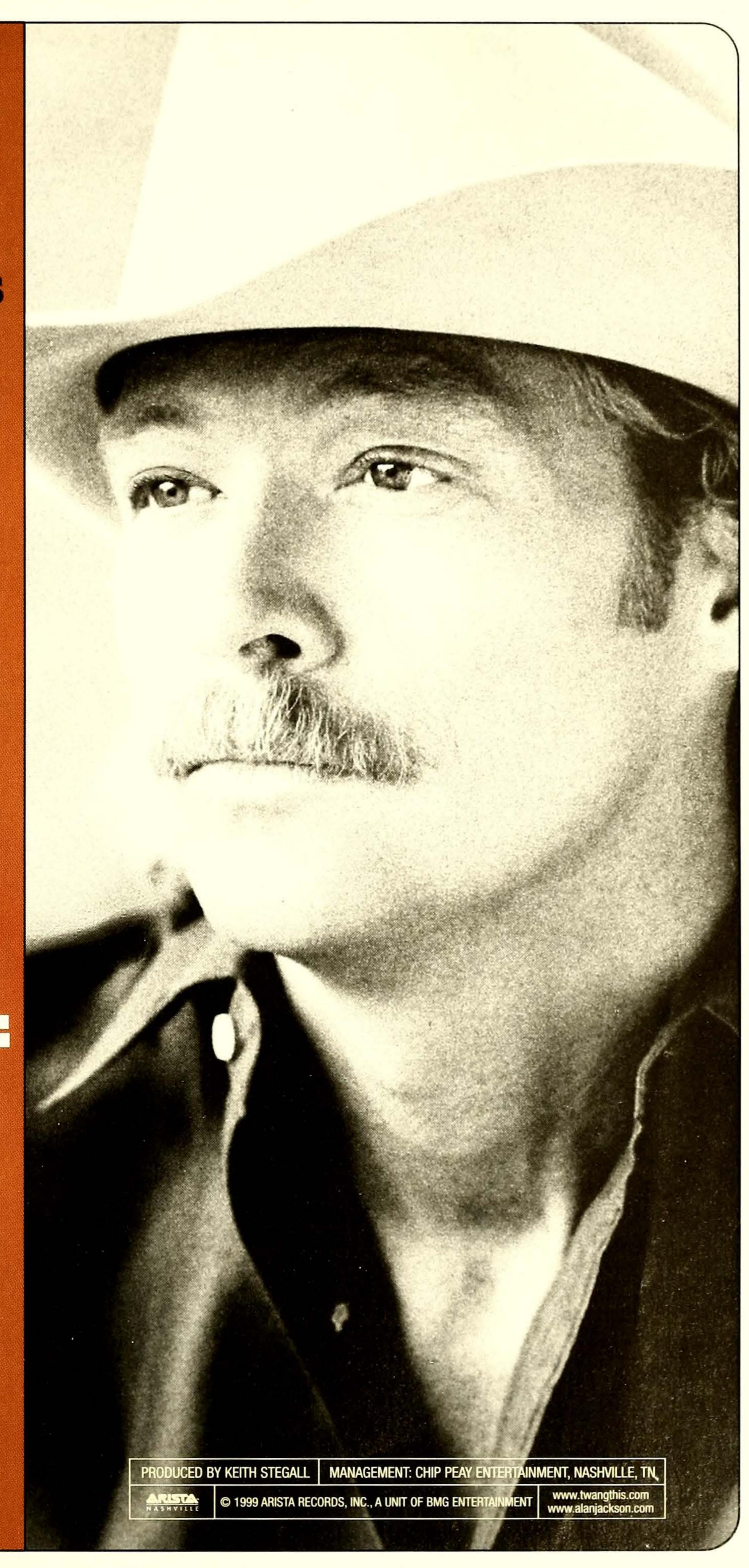
THE STUNNING NEW ALBUM FEATURING, "POP A TOP,"

"MARGARITAVILLE"
(WITH JIMMY BUFFETT)
"KISS AN ANGEL GOOD MORNIN',"
"IT MUST BE LOVE,"
"FAREWELL PARTY,"
AND MUCH MORE.

ON SALE NOW

Lastings

Your Entertainment Superstore





Get a free Justin Gear Bag when you buy selected Justin Boots!



Wrap up a free gift from Justin

This holiday season you can get a Justin Gear Bag when you purchase selected Justin boots. From Westerns to Workboots, Lace-Rs® to Chukkas. Justins are always the perfect holiday gift. And right now this great free Gear Bag makes them even more special. Hurry to your participating Justin retailer because supplies are limited!

