Vision

CHAIRMAN'S MESSAGE
Environmental, Health & Safety 2001 Annual Review

Building a green business

This past year, John Deere introduced an unprecedented number of new innovative products that were received around the globe with great enthusiasm.

While providing products and services that delight our customers, we are pursuing an equally ambitious goal - to build a business as great as these products. I'd like to share how our worldwide environmental, health and safety programs are vital to achieving this goal.

It means running green - building a business that's as *green* as many of our products. There's a good reason why the color has become synonymous with John Deere. Our company recognized its reliance on the land many years ago because of the products it manufactured. Long before the law mandated it, John Deere implemented processes to better protect the environment and minimize the impact of its factories and products.

Today our environmental stewardship extends from the design of our products through the manufacturing process, and continues even when our products are in the hands of the customer. That's why parts made from soybean and corn-based plastic will debut on our combines this year - the first use of these renewable resources in a commercial application like this.

It's why our Williamsburg, Va., factory was the most recent John Deere facility to install a paint system that is designed to exceed federal, state and local regulations. And it's why last year John Deere approved the use of biodiesel fuel in its products - the culmination of 35 years of encouraging the development of bio-based alternative fuels.

Building a great business means making safe products in work environments that protect our employees. It's a commitment we take very seriously. Since 1975, the company's lost-time severity rate has dropped by 94 percent and its lost-time frequency rate by 93 percent. Seven John Deere facilities hold industry-best safety records for their operations.

We protect our customers as well, with safety innovations like the FieldVision lighting introduced on the latest John Deere tractors. In 2000, John Deere was named one of 32 charter members of the Consumer

Product Safety Commission's Product Safety Circle - an acknowledgement of our reputation as an industry leader in creating safe products.

Our diligence applies to the health of our employees around the world, too. During 2001, more than 80 percent of major John Deere factories in the United States implemented the use of portable defibrillators to provide quick response for employees in cardiac arrest.

Yet, to build a great business we can't rely on past accomplishments. Since its inception, this annual review has been designed and produced as a print document - until this year. The 2001 review that accompanies this letter has been created in an electronic web-based format and will be available on John Deere's Running Green environmental Web site at http://www.deere.com/deerecom/_Environmental/default.htm

This new format will allow us to share information about our environmental, health and safety programs with a broader audience, while reducing costs and conserving resources.

We will continue to search for solutions like this. During 2002, our environmental programs will maintain their emphasis on waste reduction, sustaining a downward trend observed in 2001. Our occupational safety programs will push toward our corporate-wide goal of zero on-the-job injuries, while focusing on off-the-job safety as well. Our employee health programs will use our new Medgate software system to create a database that will allow us to track injuries and recurring incidents more effectively.

John Deere will continue to actively pursue environmental, health and safety goals like these because it's the right way to build a great business *and* great products - for our shareholders, dealers, suppliers, employees, communities and customers.

Robert W. Lane

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GREEN ENERGY PROJECT TURNS GRASS INTO ELECTRICITY

Lenexa, Kansas (December 3, 2001) John Deere equipment and technical support are playing important roles in a groundbreaking project in central Iowa that aims to turn common switchgrass into electricity. More than 80 farmers managing 7,000 acres are working with the project. Switchgrass is a common prairie grass and is grown on marginal farmland throughout many parts of North America.

Alliant Energy is testing small portions of the switchgrass at its Ottumwa Generating Station in Chillicothe, Iowa, which is co-owned with MidAmerican Energy. If the project reaches its goal, five percent of the fuel burned at the generating station will be switchgrass, eventually adding up to 200,000 tons burned annually at the site.

The Chariton Valley Biomass Project is a cooperative effort of government agencies and private sources and is managed by the Chariton Valley Resource Conservation & Development, Inc., Centerville, Iowa; a non-profit corporation focused on helping Southern Iowa farmers.

"This renewable energy source will offer every coal-fired generating station a good alternative as governmental policy concerning green fuel changes and as coal gets more expensive to produce," said Martin Braster, project coordinator for the Chariton Valley Biomass Project.

John Deere self-propelled windrowers and square balers harvested the switchgrass needed in the experimental phase and John Deere's Ottumwa Works personnel developed the expertise on how and when to best cut and store the annual crop.

"The preliminary results are very positive," said Braster. "The switchgrass mixture produces less greenhouse emissions and is a

good renewable source of energy. However, the National Renewable Energy Laboratory will issue the official test results later this year."

Permanent processing equipment and other hardware as well as storage buildings for the switchgrass are being installed now in the project's second phase. Authorities hope to make harvesting the grass a valid commercial enterprise for Southern Iowa farmers by 2004-2005.

Switchgrass was chosen because it has a high-energy output when properly harvested. Iowa State University is testing the impact of harvests on the environment, including water runoff, wildlife, and soil stress. The initial success of the Chariton Valley Biomass Project has been encouraging for similar projects in Alabama and Pennsylvania that were initiated over a year ago.

John Deere is the world leader in producing agricultural equipment with a 100-year-plus history in hay and foraging expertise at the John Deere Ottumwa Works.

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JOHN DEERE APPROVES ECO-FRIENDLY BIODIESEL FUEL FOR ITS PRODUCTS

Lenexa, Kansas (December 3, 2001) -- John Deere has approved the use of soy-based Biodiesel in all of its diesel-powered products. This announcement is just the latest step in John Deere's ongoing 35-year commitment to the development of bio-based alternative fuels that benefit both the environment and the agricultural community.

"We're excited to be able to support the use of Biodiesel in our products," notes Ted Breidenbach, Manager of Worldwide Engine Engineering for John Deere Power Systems. "Biodiesel is a valuable tool for helping reduce engine emissions. It also stands as one of the linchpins in the movement to develop alternative uses for commodity products that can ultimately deliver more value to our producer customers.

"The quality of Biodiesel as a fuel source has improved tremendously in recent years," Breidenbach adds. "We're confident that when it's used per factory specifications it will generate the performance producers have come to expect from their John Deere equipment."

After thorough testing and analysis John Deere engineers have developed the following guidelines to help ensure optimum use of Biodiesel:

- Customers should consult with their local fuel suppliers to be sure the Biodiesel fuel meets the ASTM PS 121-99 or DIN 51606 fuel specifications.
- Biodiesel, by definition is biodegradable, so the higher the concentration of Biodiesel in a fuel blend, the more susceptible the fuel is to degradation and water absorption. While rapeseed methyl ester (RME) concentrations up to 100% have been run successfully, concentrations of up to five percent Biodiesel have shown improvement in fuel lubricity while minimizing the potential problems associated with fuel degradation.
- Operators should keep storage and vehicle tanks as full as possible to prevent moisture. Storage tanks should be protected from extreme temperatures and extended storage of Biodiesel fuel should be limited. Routine monitoring of the fuel's water content is also recommended.

Following these guidelines will ensure normal warranty coverage on products fueled by Biodiesel blends.*

John Deere will continue to support further development and use of Biodiesel and additional alternative uses for agricultural commodities. This commitment is evident in the company's support of renewable fuels legislation and in John Deere's ongoing exploration and use of soy-based resins to replace sheet metal on products. An example of this technology is the HarvestForm panels that will be used on John Deere Combines built in 2002. These panels are made from a special polymer derived from corn and soybeans.

"These are exciting technologies that will have long-term benefits for producers, consumers and every citizen with environmental concerns," Breidenbach says.

Biodiesel can also be used in older model tractors and engines. Please check with your local John Deere dealer or fuel supplier for details. One of the world's oldest and most respected enterprises, John Deere (www.JohnDeereAg.com) creates smart and innovative solutions, in the form of advanced machines, services and concepts, for customers on the farmsite, worksite, and homesite worldwide.

* Users of John Deere Emission Certified Engines, are responsible for obtaining any appropriate local, state, and national exemptions required for the use of Biodiesel.

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John Deere Vehicle Group Unveils
Environmentally Friendly Paint System

Williamsburg-area manufacturing facility increases investment with $12 million paint process.

JAMES CITY COUNTY, VA - John Deere recently unveiled an environmentally friendly paint system within its 300,000-square-foot manufacturing facility near Williamsburg, Va. The $12 million investment in the paint system includes the process, equipment and conveyors that will support the assembly of John Deere Gator® utility vehicle products. The opening of the system brings the John Deere investment in the Williamsburg area to $42 million. Initially, John Deere hired 10 people to support the opening of the system and, eventually, will employ more than twenty people to support this new operation.

"The paint system signifies another step in John Deere's commitment to the economic growth of the Williamsburg area," said David C. Larson, vice president and general manager. "Because our commitment to being a good corporate citizen does not end with the economic growth of the community, we've worked hard to ensure that the paint facility meets the highest environmental standards in order to protect the environment of the area."

Consistent with the John Deere promise of providing award-winning environmental stewardship, the paint facility is designed and built to far exceed federal, local and state standards. In addition to installing the most current finishing technology, John Deere also installed a water treatment facility to ensure that all water is returned directly to the Hampton Roads Sanitation District drains.

Larson noted that the processes in place ensure the highest air quality possible with extremely low VOCS (Volatile Organic Compounds) and absolutely no HAPS (Hazardous Air Pollutants) released into the air and will exceed the Federal Clean Air Standards. Larson also remarked that the process utilizes the latest recycling technologies to practically eliminate any solid waste going to landfill.

The paint facility will support John Deere Vehicle Group's Lean Enterprise® strategy, which focuses on streamlining the product delivery process to customers. The new paint system will allow for all utility vehicles manufactured in the John Deere Vehicle Group facility to receive paint on site. The paint system will house areas for paint pretreatment, epoxy e-coat primer and powder paint topcoat. The paint process takes place in a "clean" room, controlled for heat, humidity and cleanliness.

The powder paint topcoat can provide a variety of colors. The process takes four hours from the time parts enter the system to completion and will result in a durable and attractive finish.

The new paint system is an integral part of the growth plans of the Vehicle Group for their James City County plant. "Recently, Deere and Company announced plans to reduce the total U. S. workforce by eight percent through a voluntary retirement program," Larson stated. "While this is a workforce reduction, no one currently working in Williamsburg has the number of service years and the age threshold required to choose retirement. The majority of those who can choose this option work at our facilities in the Midwest."

John Deere manufactures the Gator® and ProGator® utility vehicle lines in Williamsburg, Va., and in Welland, Ontario, Canada. These include four-wheel and six-wheel versions, with both gas and diesel and electric versions.

The John Deere Vehicle Group is part of the John Deere Worldwide Commercial & Consumer Equipment Division. The Commercial and Consumer Equipment Division produces a full line of lawn care equipment for residential, commercial, and golf and turf applications, distributed through its network of independent dealers and home centers.

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DEERE INVESTMENT TO IMPROVE QUAD CITY AIR QUALITY

MOLINE, Illinois (June 7, 2001) -- Deere & Company will invest $2 million to reduce solvent emissions from painting operations at the company's downtown Moline manufacturing operations. The effort will reduce emissions from the company's painting operation at that location by 95 percent.

Deere manufactures seeding equipment and hydraulic cylinders at the downtown Moline locations on 3rd Avenue. Since paint system emissions make up a significant portion of the factory's overall emissions, Deere said the Moline operations should be capable of reducing overall emissions now by 60 to 70 percent.

Deere told the Bi-State Air Quality Task Force today that new equipment would be installed later this fall with performance testing completed by the end of the year. The installation should enable the Moline locations to be downgraded to a minor source of air emissions under all state and federal permitting programs.

Deere said the move would improve air quality during the workweek in the Quad City area. The company has met with the Illinois Environmental Protection Agency to begin the permit process. Deere said a permanent total enclosure would be constructed around the paint system. The enclosed atmosphere will then be redirected to a new regenerative thermal oxidizer that reduces solvent emissions and does so with energy efficiency above 90 percent.

Deere has been continuously improving its environmental performance with investments at three Quad City factories now totaling $23 million over the past several years.

For further information, the news media should call:
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DEERE & COMPANY RECEIVES NATIONAL HONOR FOR STANDARDS LEADERSHIP

MOLINE, Illinois – (October 10, 2001) -- Deere & Company will be honored tonight with the Ronald H. Brown Standards Leadership Award at the World Standards Day 2001 banquet in Washington. Deere is being recognized by the American National Standards Institute for its leadership and commitment to the development and use of standards in the global design of products and quality management systems.

The Ronald H. Brown Standards Leadership Award was presented to Robert Lane by Michael Brown, son of the former U.S. Secretary of Commerce, Ronald H. Brown.

The aim of World Standards Day is to raise awareness of the importance of global standardization to the world economy and to promote its role in helping meet the needs of business, industry, government and consumers worldwide.

The leadership award is named to honor former U.S. Secretary of Commerce Ronald H. Brown, who died in a plane crash on a trade mission to Central Europe.

In accepting the award on behalf of all John Deere employees, Robert W. Lane, chairman and chief executive officer, will stress the role of standards in John Deere's success and the vital role standards play in protecting the productivity, sustainability and vitality of the environment.

In his prepared remarks, Lane said, "We all are working for effective voluntary standards that allow all companies to design and develop products that move in world trade. This encourages investment and innovation, while adding to global productivity and the planet's sustainability."

"We believe world class companies must see their environmental responsibility holistically. This involves a comprehensive array of programs that maximize the efficiency and productivity of all our

assets and resources. This holistic view minimizes practices that might adversely affect the safety and health of our employees and customers, as well as the sustainable productivity of the planet."

Lane pointed out that John Deere believes it has a unique mission "to provide our customers with better and smarter equipment and technology that allows the fullest productivity from the earth's resources, while ensuring the same harvests of plenty for future generations."

"We believe continually shrinking our environmental footprint is not only the right thing to do – it's the right way to generate real business value for our customers and our shareholders," Lane said.

Lane said he believes John Deere can make no greater contribution than to invest in developing ever-smarter equipment that simultaneously improves and maintains the productivity and vitality of the world's current productive land.

"Significant increases in crop yields will be needed to meet the food needs of a growing and urbanizing population with rising incomes. This will have profound implications for the world's agricultural production and trading systems in coming decades. We believe the environmentally safest direction to proceed is to invest in developing the agricultural science, technology and tools that will allow us to increase current output to meet projected needs – primarily on the good land already being farmed around the world," he said.

But, Lane stressed, the gains will not come without the world paying much more attention to standards. "Standards play a critical role in the success of all new John Deere products, as well as our environmental and safety management processes. They provide measurement systems to support risk assessment."

"In a nut shell, a sustainable environment requires increased productivity; productivity comes about by innovation; innovation is the result of investment; and investment is only possible when a reasonable return is expected. The efficient use of money is more assured when there are known standards in which to operate," he stated.

John Deere experts, Lane said, are also at the forefront of a global movement to promote one standard and one test for each product line to reduce redundant requirements worldwide. "When industries, countries or regional economic blocks impose their own standards and testing practices, they are creating de facto non-tariff trade barriers. We support ongoing industry and governmental efforts to reduce non-tariff barriers to trade in global markets," he stated.

In thanking the ANSI Federation for honoring John Deere with the Ronald H. Brown Award, Lane said "We will use this honor to fuel our continued work on the standards front. We invite all businesses and all parties to join with us to help bring the "environment and standards closer together."

Deere & Company (www.JohnDeere.com) creates smart and innovative solutions, in the form of advanced machines, services and concepts, for customers on the farmsite, worksite and homesite worldwide.

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John Deere Horicon Works Wins
Business Friend of the Environment Award

Company honored for efforts in environmental protection

MADISON (16 May 2001) - The Wisconsin Environmental Working Group announced John Deere Horicon Works, of Horicon, was one of nine Wisconsin companies presented the Wisconsin Business Friend of the Environment Award, in recognition of leadership in environmental protection.

John Deere Horicon Works won the award for its efforts to protect the environment through innovative technology.

The Wisconsin Environmental Working Group (WEWG), an affiliate of Wisconsin Manufacturers and Commerce, annually recognizes companies that have made significant improvements in the areas of pollution prevention, innovative technology and environmental stewardship. The companies were honored during the 12th Annual Environmental Policy and Awards Conference at the Country Inn in Waukesha.

"These award-winning Wisconsin companies are leaders in environmental protection," said Jeff Schoepke, WEWG Director. "Improving the environment is good business, good citizenship and good politics."

Founded in 1837, today John Deere does business in more than 160 countries and employs approximately 37,000 people worldwide with over 1500 in Wisconsin.

The Company's latest innovative effort to protect the environment involved a bioengineering project to stabilize and protect 1,800 linear feet of the Rock River shoreline. The approach used living plants, and organic structural elements and materials as basic construction modules.

It was the first private company of its kind to be granted a permit to use this type of shoreline stabilization. The summer of 2000 revealed a much-improved riverbank that is stable and free of any signs of erosion. The shoreline is dotted with numerous native plant species, including sedges, rushes, grasses and flowers. The local community takes great pride in the company's efforts, and local boat tours of the river and Horicon Marsh describe the company's restoration project.

An independent panel of judges, including representatives of environmental organizations, the Department of Natural Resources, and the University of Wisconsin-Extension, evaluated the 43 nominations. Business Friend of the Environment Award winners are categorized based on number of employees and selected for their commitment and improvements in the areas of pollution prevention, innovative technology and environmental stewardship.

"Wisconsin businesses are the driving force behind some of the most effective innovations and programs," Schoepke said. "They have invested research, time and money to develop new technologies to become more efficient, less wasteful, and more protective of our natural resources."

Since the program's 1990 inception, 98 companies have received Business Friend of the Environment Awards. The program serves as a resource for innovative solutions to many industry-specific environmental challenges.

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Corn and Soybeans Now Used in Deere Combines

Reprinted courtesy of Plastics Engineering, a publication of the Society of Plastics Engineers.

Starting with the 2002 model year, corn and soybeans will be picking themselves when they're harvested with John Deere Harvester Works' combines. The factory's entire line of combines now includes panels made with HarvestForm™ - a durable, new composite of soybean and corn polymers.

Corn and soybean resin adds strength, flexibility, corrosion resistance, and endurance to the panels, while weighing 25 percent less than steel. HarvestForm is used in the combines' styling panels and cab roofs. This is the first commercial use of renewable resources in these processes, and the first step in helping create new markets for the farmer customer's product. The demand for corn and soybeans will increase as use of the material is expanded on combines and introduced on other John Deere equipment and in other industries. The further development of renewable resource based polyester and polyurethane polymers will also up the demand for corn and soybeans. Future application is underway on the use of flexible urethane foam components, such as seating, and the use of natural fibers, such as flax, in polymer composite panels.

Key employees behind the HarvestForm development include Barry Nelson, manager ag public relations; John Cerny at the Technical Center, who initiated the technology development; Greg McCunn and Brian Maas in product development in John Deere Harvester Works; and Mark Christenson at John Deere Harvester marketing, who helped turn the technology into reality. Learn more

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R.W. Lane

Robert W. Lane
Chairman and CEO
Deere & Company

World Standard's Day
Ronald H. Brown Standards Leadership Award
Washington, D.C.,
October 10, 2001

Thank you, Mr. Brown. Obviously, on behalf of John Deere, it is my privilege to receive this award.

Mr. Brown, your father's devotion and initiatives to developing international trade were exemplary. His legacy proclaims that a key ingredient in establishing freedom and democracy around the globe is to provide an enhanced business environment that energizes trading and allows the economies of all nations to mutually flourish.

I understand you are continuing to emphasize this opportunity in your own law practice. Thank you for your continued commitment to enhancing global trade, and thank you for presenting John Deere this award.

This acknowledgement gives me the opportunity to recognize the continuous effort of over 1,000 John Deere engineers, scientists and other professionals who serve around the world as experts in this area. These men and women spend a sizeable portion of their time working to ensure that good standards are established. This allows the safe and productive manufacturing and use of John Deere equipment for agriculture, construction, forestry, mining, and lawn and turf care.

Their efforts are well aided by the network of organizations represented by you here tonight. Together, we all are working for effective voluntary standards that allow all companies to design and develop products that move in world trade. This encourages investment and innovation, while adding to global productivity and the planet's sustainability.

Mr. Rumbaugh, I also want to recognize the vital role SAE (Society of

Automotive Engineers) and all standards development organizations play in ensuring that U. S. standards support new productive technology and work to the benefit of all citizens.

The theme of World Standards Day, 2001 is: The Environment and Standards, Close Together. Obviously, both the words environment and standards are very broad terms, but it becomes clearer every year how important and intertwined these two words are.

In addressing the environment, few disagree that sustainability is an imperative; the issue is how best to achieve it. In seeking our future, we are fortunate to be building upon a foundation of solid progress. My own experience, for example, confirms this.

During high school, I was on a rowing team that trained on the Potomac River, very near here. At that time, the water quality was so bad that we were required to get typhoid shots before going out on the river - just as we are when we travel to remote parts of the world today.

Today, the Potomac is certainly cleaner, with numerous rowing teams actively slipping through water. The improvement is thanks to the business community and government working together.

Every year we are finding better methods, tools, knowledge - and standards -- to help us to live and work on earth with fewer negative impacts. However, this journey has only just begun. Around the globe, many streams are contaminated and undrinkable. Air quality in many urban centers is unhealthy. And global warming is generally accepted as a real concern.

Clearly, there is a here-and-now mandate for all of us to do much more to continue the progress already underway to restore and sustain the bounty of our earth.

We, at John Deere, look at sustainability in the broadest terms. It involves much more than simple compliance with government regulations, or starting a few initiatives such as recycling or cutting energy use.

We believe world class companies -- if I may be so bold as to include John Deere in that category -- see their -environmental responsibility holistically. This involves a comprehensive array of programs that maximize the efficiency and productivity of all our assets and resources. This holistic view minimizes practices that might adversely affect the safety and health of our employees and customers, as well as the sustainable productivity of the planet.

John Deere understands very well the importance of preserving our amazingly diverse and bountiful -- yet finite and fragile -- environment. For the 164 years we have been in business, John Deere has been

tied to the earth in a very direct way. Our customers are engaged in producing the raw ingredients for the most basic of human needs: food, clothing and shelter.

Our customers appreciate machinery and technology that are not only efficient and productive, but also preserve the environment in which they work. In fact, for most, their livelihoods, and that of their offspring who till the same soil, depend on it. Farmers certainly understand what happens when soil becomes depleted of nutrients, or overgrazed by livestock, or compacted by heavy machinery, or eroded from lack of good conservation practices. Our customers face daily many environmental issues including soil retention, water quality, noise pollution and fuel emissions.

And, our customers must answer to - and often debate with -- their customers - the global public - whose demands for environmental protection and human safety have grown exponentially since the 1960s.

As a result, John Deere has a vested interest -- in support of our customers, employees and shareholders -- in striking a healthy balance with nature. And in that sense we are a company of environmental responsibility.

The way we look at it, with our green and yellow brand colors and slogan, "Nothing Runs Like a Deere," if any company should "Run Green," it's John Deere.

We believe that we have a unique mission … to provide our customers with better and smarter equipment and technology that allows the fullest productivity from the earth's resources, while ensuring the same harvests of plenty for future generations.

We believe continually shrinking our environmental footprint is not only the right thing to do - it's the right way to generate real business value for our customers and our shareholders.

I firmly believe John Deere can make no greater contribution than to invest in developing ever-smarter equipment that simultaneously improves and maintains the productivity and vitality of the world's current productive land.

I believe John Deere's long and intimate tie to the land and those who work it gives us a special vantage point. From this view, we see two inescapable and disquieting realities that all manufacturing companies increasingly face today. One is that hydro-carbons and other non-renewable resources will not always be so economical and plentiful.

The second is that the earth's ecosystems cannot indefinitely absorb the waste and emissions created by current methods of industrial production. With proper incentives and investment, it should be possible for much of

the world to live like we do in the U.S …without … as some scientists say, needing the resources of at least three planet Earths.

Two other environmental realities facing our planet are posed in a rather striking way on the front page of our new "Running Green" web site. This site is devoted to sharing our philosophy and progress on sustainable growth through stewardship.

There you can see side-by-side two electronic tickers. One ticker shows the world's population at 6.1 billion people and rising. Every second, there are three new mouths to feed. Meanwhile, a productive-farmland ticker is going in the opposite direction. One hectare (2.47 acres) of productive land is lost every 7.67 seconds. Climatic variations, natural disasters, and human intervention are ceaselessly at work decreasing the amount of arable farmland, pastureland, and forest.

The International Food Policy Research Institute has collaborated with partners around the world in an initiative called "A 2020 Vision for Food, Agriculture, and the Environment". This vision gives us a glimpse of the world's agricultural situation about 20 years from now. 73 million people will be added to the world every year, increasing the population to 7.5 billion. Most of this population increase will occur in the urban areas of developing countries.

At the same time, per capita incomes are expected to increase which will raise demand for meat by 58% between 1995 and 2020. The demand for grain is expected to increase nearly 40% during the same period. Significant increases in crop yields will be needed to meet the food needs of this growing and urbanizing population with rising incomes. This will have profound implications for the world's agricultural production and trading systems in coming decades.

We believe the environmentally safest direction to proceed is to invest in developing the agricultural science, technology and tools that will allow us to increase current output to meet projected needs - primarily on the good land already being farmed around the world.

We believe this high-yield farming strategy will meet rising demand for farm production. At the same time, it save huge tracts of forests and other wild lands that are believed to harbor half of the world's remaining reservoir of plant and wildlife diversity that is so key to future genetic advances.

But, I would stress, these gains will not come without the world paying much more attention to standards -- the other word that is a part of the theme for this World Day conference.

Standards play a critical role in the success of all new John Deere products, as well as our environmental and safety management processes.

They provide measurement systems to support risk assessment.

Standards reduce injury and environmental pollution. They support the innovative application of knowledge in the development of new products and management systems to help our customers be more productive.

Standards aid us greatly as they establish what is state-of-the-art for a given technology at a given period of time. They allow the sharing of knowledge across companies worldwide. And, standards set expectations that become the basis for improvement for the next quantum leap.

In a nut shell, a sustainable environment requires increased productivity; productivity comes about by innovation; innovation is the result of investment; and investment is only possible when a reasonable return is expected. The efficient use of money is more assured when there are known standards in which to operate.

At John Deere, our mission has been to use standards as the way to reduce the amount of wastes created by our manufacturing process and in the use of our equipment. Over the years, we have developed processes fundamental to addressing environmental concerns -- and backed them with management commitment.

Part of that management commitment is to the standardization process. I recognize, and all senior John Deere managers recognize, the importance of standards as they relate to product design. We recognize that to fulfill our mission of developing environmentally safe products that customers desire -- while prospering in a global economy -- it is to our benefit to build to nationally accepted standards, and ideally, to build to global standards.

And, we understand that standards can be potent market forces. If you're not at the table, your product design is not considered. You're out of the loop and can face losing your market presence altogether. Therefore, we have acted as a guide for regulatory agencies. This has helped to form the basis for a constructive relationship between industry and government, and the promotion of voluntary standards in lieu of regulation.

John Deere experts are also at the forefront of a global movement to promote one standard and one test for each product line to reduce redundant requirements worldwide. When industries, countries or regional economic blocks impose their own standards and testing practices, they are creating de facto non-tariff trade barriers. We support ongoing industry and governmental efforts to reduce non-tariff barriers to trade in global markets.

In a free market society, it's preferable to uphold voluntary standards. It has been John Deere's policy to provide expertise and support to standards-developing organizations. We recognize that it is far better to

adopt an effective standard voluntarily than to face possibly arbitrary and less effective government regulations that are difficult to modify.

We applaud governments' actions to use voluntary standards for their own initiatives where necessary and applicable. However, where regulatory agencies are establishing allowable limits under the mandate of law, we expect our own and industry experts to present the best information available so that technically sound regulations come to fruition.

To truly achieve the sustainable environment we discussed earlier, all stakeholders in the regulatory process must work in harmony.

For all of these reasons, we are deeply committed to the voluntary standards process and participate in a wide variety of standards-setting organizations ranging from the Society of Automotive Engineers (SAE), and the American Society of Agricultural Engineers (ASAE), to the International Organization for Standardization (ISO). Moreover, we are staunch backers of the American National Standards Institute (ANSI).

Everyone must be part of the standards process, with subject matter experts leading the way. We encourage participation at John Deere from a variety of our employees, and we believe this is the pathway to the best standards development for the environment and other aspects of product design.

In closing, let me reiterate that John Deere views participation in standards activities integral to our long-standing success in the marketplace. Likewise, we believe standards are imperative to solving global environmental problems. Remember, always, if you're not at the table helping establish voluntary approaches to solving environmentally related problems, some other company or nation will be. Someone else will write the rules that will govern your business.

I thank all the members of the World Standards Day Committee for honoring John Deere tonight with the Ronald H. Brown Award. We will use this honor to fuel our continued work on the standards front. We invite all businesses and all parties to join with us to help bring the "environment and standards closer together."

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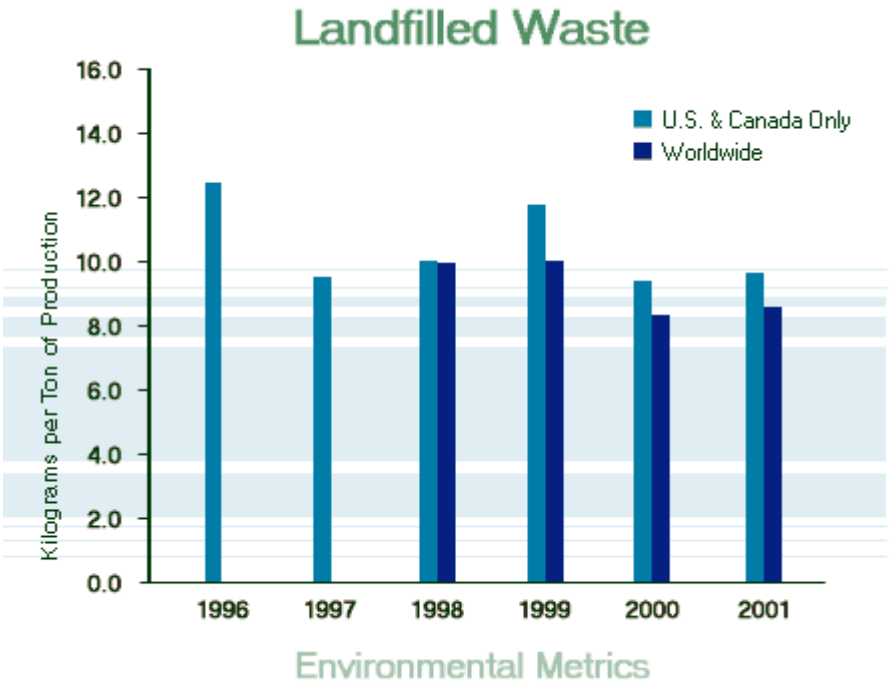

Landfilled waste - includes nonhazardous waste sent to landfills for disposal except for powerhouse bottom ash from coal combustion and waste foundry sand.

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Hazardous waste - includes waste classified as hazardous per the U.S. Environmental Protection Agency RCRA hazardous waste definition.

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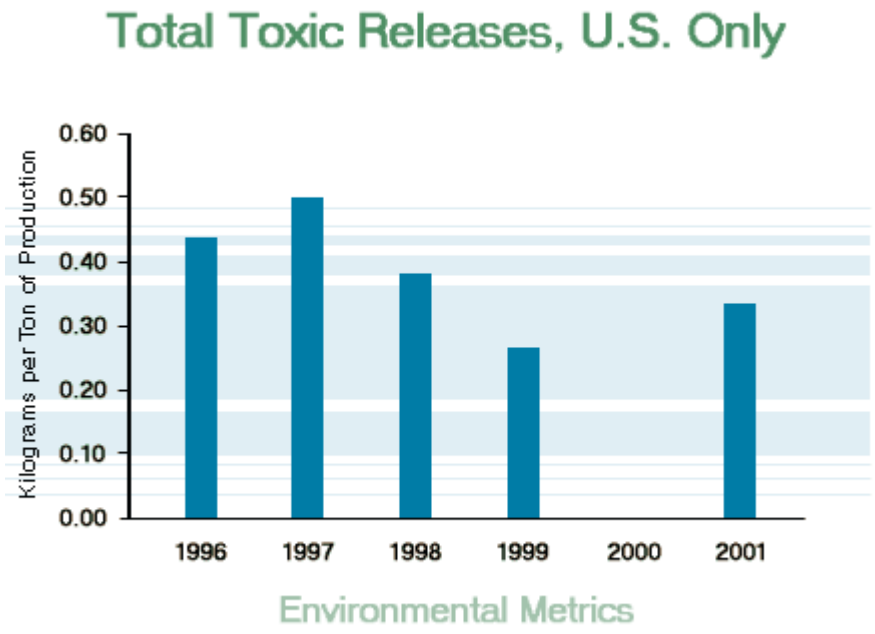

Total Toxic Releases - includes releases reported on U.S. Environmental Protection Agency Form R reports as released off site or disposed of off site.

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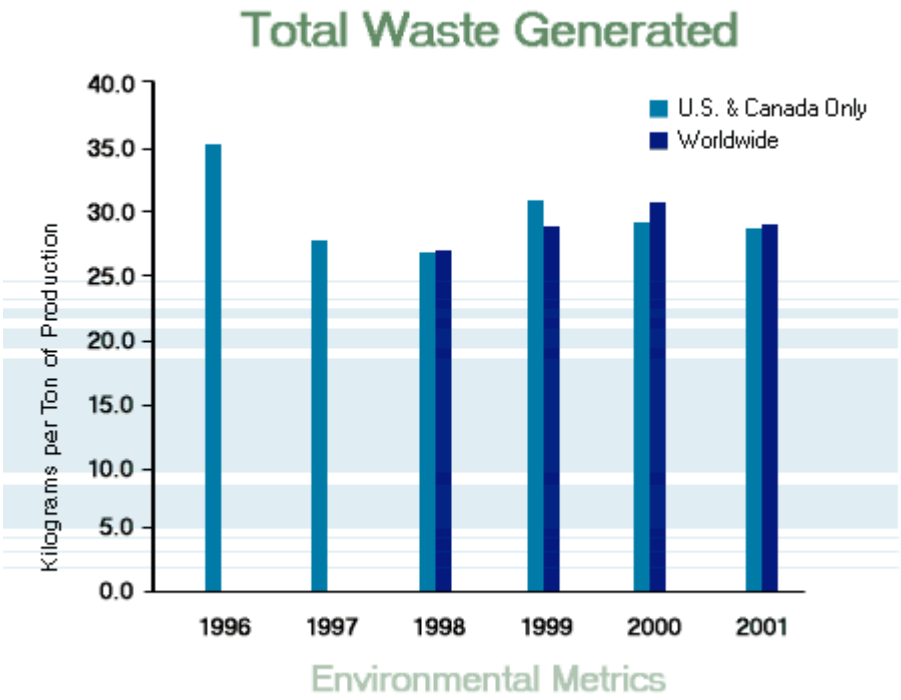

Total Waste Generated - includes all solid waste and sludges generated, both hazardous and nonhazardous, except for powerhouse bottom ash from coal combustion and waste foundry sand. It does not include wastewater sent off site for treatment, wastewater discharged to sewer systems, or emissions into the air.

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Safety

John Deere Employees Make 2001 Safest Year Ever

Fiscal Year 2001 was another record-breaking year for John Deere safety performance. In fact, Fiscal 2001 was the best ever in terms of rate improvement. On a worldwide basis, the company's frequency and severity rates improved 24 percent and 36 percent respectively from last year.

"This represents the best composite improvement ever achieved by John Deere and is simply outstanding," says Ralph Grotelueschen, Deere & Company director of safety, environment and standards. "These results are among the very best in the world for any type of business, and certainly Deere is the manufacturing leader in safety."

"This is an exemplary accomplishment and puts us one large step closer to our enterprise-wide goal of zero injuries," adds Robert Lane, chairman and chief executive officer. "Keeping safety as a global core value is a key imperative to fulfilling our role as a world-class employer."

Looking at the results around the world, the Overseas, Administrative, Marketing, and Warehousing facilities led the way in contributing to the low numbers. Overseas factories turned in decreases of 35.9% in frequency rate and 42.6% in severity rate from 2000. The long-term history for the Overseas factories is noteworthy, showing a decrease for their frequency rate of 95.6% since 1976 and a severity rate decrease of 94.l% for the same time frame.

The Administrative, Marketing & Warehousing facilities show a 56% decrease in their frequency rate through the 3rd quarter of 2001 compared to 2000 performance. Their severity rate has decreased 74% from 2000 performance. Since 1975, the Administrative, Marketing & Warehousing facilities have reduced their frequency and severity rates by 96% and 94% respectively.

John Deere's domestic factories' severity rate decreased 13 percent, while the frequency rate increased 17 percent from last year's performance. However, since 1975 the domestic factories have reduced their frequency and severity rates by a very noteworthy 92% and 97% respectively.

"This is really a credit to all John Deere employees worldwide for establishing a positive safety culture and distinguishing themselves as world class leaders," says Gary Kopps, Deere & Company Manager of Occupational Safety. "I salute all our unit safety and health professionals throughout the company for their diligent initiatives to drive improved safety performance, and unit and division leadership for aggressively supporting safety as a key goal of their operations. All our facilities worldwide are

setting their safety goals and objectives that should allow us to achieve another major improvement in 2002, and continue the journey to attain zero injuries."

View the chart

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Safety

Parts Distribution safety focus brings success in 2001

The 550 employees working at the Milan, Illinois Parts Distribution Center (PDC) location has surpassed the 5 million hour mark of hours worked without a lost-time injury or illness, keeping the record climbing from its April 29, 1997 start. The last record was just over 3 million hours. Also in the first nine months of (calendar) 2001, compared with the same period in 2000, eleven Depot locations saw a 55 percent reduction in lost-time injuries and illnesses.

PDC Safety Director Rod Swager gives credit to many people for these safety improvements. "It requires a shared effort to make better safety a possibility," he said, adding that he is impressed by the strides made at depot locations. "We've exceeded a 50 percent reduction in lost-time incidents in such a short time because of the endorsement of George Graves, manager of parts depot operations, the initiative of the safety contacts and committees, and the commitment of all depot employees."

Safety efforts among Parts Distribution sites have been constant in 2001. First, the issue got a shot in the arm March 7-9, when wage and salaried safety reps from all locations gathered in Milan for the first annual Group Safety Meeting, held to bring commonality to the different sites' safety processes and philosophy. Next, Parts Distribution was put in the limelight on safety issues at the enterprise-wide John Deere Ergonomics Meeting. The May 16-17 event was at Parts Distribution – Kansas City, marking the first time the Parts division has hosted the meeting. In addition, some Parts locations held Safety Fairs and/or started Safety Dollar programs this year. At the start of 2001, PDC expanded its program to include salaried employees.

One remarkable result of safety efforts has shown in Minneapolis and Atlanta. Both have tremendously improved their rate of lost-time days. In 2000, Atlanta lost 175 days, but this year, the site was down to five. The contrast in Minneapolis was 118 days to none. The transitional work duty program, under which employees gradually transition back to work after an injury, has greatly helped.

Parts Distribution Best Practices

Minneapolis
The employees have really worked together! One example is the bulk storage area. It was reorganized so the heaviest parts are in the more accessible levels of racks. This has made storing and picking parts easier for employees.

Atlanta
Each month, employees collect "Safety Cards" with each letter of the word SAFE by correctly answering safety- and health-related questions. Those who spell SAFE with the cards win John Deere brand items like keychains, koozies and coffee mugs. Quarterly, successful participants with no lost time are in drawings for prizes

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Safety

Deere & Company Offices Hit Safety Performance Record

"Deere & Company's Unit 90 recently passed a safety performance mile marker on its way to a seemingly unreachable goal," says Glenn Williams, safety, environmental and security administrator for Unit 90. "We passed 15 million hours without a lost time injury on Nov. 2. We estimate that on approximately Feb.15, 2002, we will surpass the National Safety Council record for offices of 16,736,330 hours set by Hercules Corporation of Wilmington, Del."

The John Deere Davenport Works set an all time construction equipment manufacturing industry record last year and, currently holds the John Deere factory record of 8,422,526. "Although Unit 90 does not have production welders, assemblers, etc., we do have people who travel extensively. We also have skilled trades maintenance and grounds care workers, engineers in the labs at the Technology Center and the ADV Lab, and in the field," Williams says.

A lost time injury is defined as an injury suffered at work that prevents someone from returning the next day to their assigned duties. The last lost time injury at Unit 90 happened in February, 1999. "The best way to prevent a lost time injury is to prevent every injury." says Williams. "This is in direct alignment with the enterprise goal of "zero" injuries," adds Gary Kopps, Deere & Company, manager, occupational safety.

"When injuries are so few, like those we've experienced at Unit 90, people tend to put their attention elsewhere. With wintertime weather and the holidays upon us, everyone needs to be constantly vigilant to prevent injuries," says Williams. "Unit 90 employees should be proud of their accomplishment in reaching 15 million hours and continue to work hard to reach the all-time office group record and beyond."

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Safety

SAFETY AWARDS RECEIVED IN 2001

In 2001, John Deere facilities in the United States, Canada and South America received 62 awards from the National Safety Council for workplace safety. In addition, Industrias John Deere, S.A. de C.V., Saltillo, Mexico, received a government program award for the maximum reduction level from the Health Administration Laws. Cameco do Brasil, in Catalao, Brasil, was recognized by the Social Service of the Industry of the State of Goias for Administration, Health, Environment, Education and Development, Leisure and Culture and Social Responsibility for facilities with 100-499 employees.

National Safety Council Awards

Industry Leader Award [1]
John Deere Davenport Works, Davenport, IA
John Deere Engine Works, Waterloo, IA
John Deere Parts Distribution Center, Milan, IL

Perfect Record Award [2]
Cameco Industries, Thibodaux, LA – 1,000,000 hours
Cameco do Brasil, Catalao, Brasil – 1,005,220 hours
Deere & Company, Moline, IL – 5,960,076 hours
Deere-Hitachi Construction Machinery Co., Kernersville, NC – 1,500,000 hours
Deere-Hitachi Construction Machinery Co., Kernersville, NC – 2,000,000 hours
John Deere Commercial Products, Augusta, GA – 1,346,074 hours
John Deere Commercial Worksite Products, Knoxville, TN – 1,086,362 hours
John Deere Consumer Products, Inc., Charlotte, NC – 3,387,038 hours
John Deere Credit, Johnston, IA – 8,137,762 hours
John Deere Davenport Works, Davenport, IA – 7,313,123 hours
John Deere Dubuque Works, Dubuque, IA – 2,193,563 hours
John Deere Engine Works, Waterloo, IA – 3,648,109 hours
John Deere Harvester Works, East Moline, IL – 2,081,760 hours
John Deere Harvester Works, East Moline, IL – 5,113,282 hours
John Deere Harvester Works – Cylinder Division, Moline, IL – 3,208,076 hours
John Deere Parts Distribution Center, Milan, IL – 4,244,373 hours
John Deere Power Products, Greeneville, TN – 3,000,000 hours
John Deere Seeding Group, Moline, IL – 4,318,147 hours
John Deere Seeding Group, Moline, IL – 4,786,322 hours
John Deere Turf Care, Raleigh, NC – 2,436,148 hours
John Deere Turf Care, Raleigh, NC – 3,000,000 hours
John Deere Waterloo Works, Waterloo, IA – 4,754,839 hours

Level 1 – Green Cross Safety Excellence Achievement Award [3]
Cameco Industries, Thibodaux, LA
Deere & Company, Moline, IL
Deere-Hitachi Construction Machinery Co., Kernersville, NC

Funk Manufacturing Company, Coffeyville, KS
John Deere Agricultural Marketing Center, Lenexa, KS
John Deere Commercial Products, Augusta, GA
John Deere Commercial Worksite Products, Knoxville, TN
John Deere Company – Atlanta, Atlanta, GA
John Deere Company – Dallas, Dallas, TX
John Deere Company – Kansas City, Kansas City, MO
John Deere Company – Minneapolis, Minneapolis, MN
John Deere Company, Raleigh, NC
John Deere Company – Reno, Reno, NV
John Deere Construction Equipment Company, Moline, IL
John Deere Consumer Products, Charlotte, NC
John Deere Consumer Products, Columbia, SC
John Deere Consumer Products, Greer, SC
John Deere Credit, Johnston, IA
John Deere Davenport Works, Davenport, IA
John Deere Des Moines Works, Ankeny, IA
John Deere Engine Works, Waterloo, IA
John Deere Harvester Works, East Moline, IL
John Deere Health Care, Moline, IL
John Deere Horicon Works, Horicon, WI
John Deere Limited – Grimsby, Grimsby, ON
John Deere Limited – Grimsby, Grimsby, ON
John Deere Limited – Regina, Regina, ON
John Deere Parts Distribution Center, Denver, CO
John Deere Parts Distribution Center, Dallas, TX
John Deere Parts Distribution Center, Milan, IL
John Deere Parts Distribution Center, Portland, OR
John Deere Power Products, Greenville, TN
John Deere Seeding Group, Moline, IL
John Deere Turf Care, Raleigh NC
John Deere Waterloo Works, Waterloo, IA
John Deere Welland Works, Welland, ON

[1]Awarded to the top five percent of companies in the Level 1 program. These companies represent the "best of the best" based on lost workday case rates in their 2-, 3-, or 4-digit SIC code.

[2]Recognizes organizations that have completed a period of at least 12 consecutive months (FY2000) without incurring an occupational injury or illness that resulted in days away from work or death.

[3]Recognizes organizations with a lost work day case rate equal to or less than 50 percent of the Bureau of Labor Standards rate of their 2-, 3-, or 4- digit SIC code and have had no fatalities during a twelve-month reporting period (FY2000).

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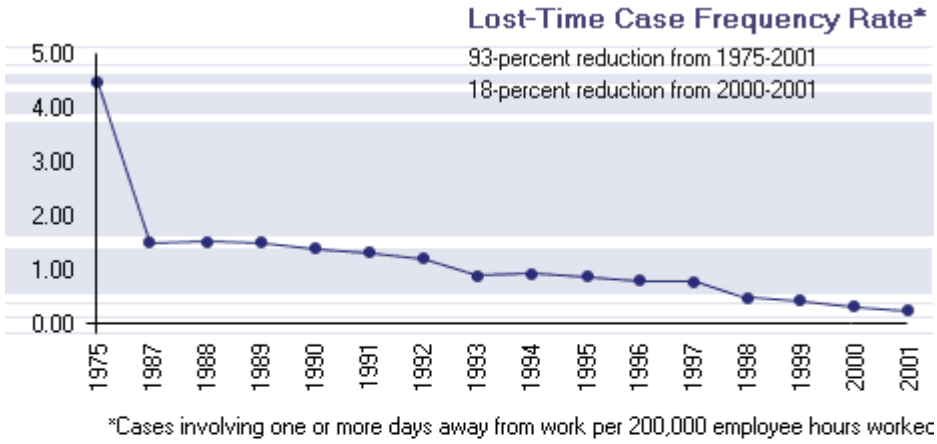
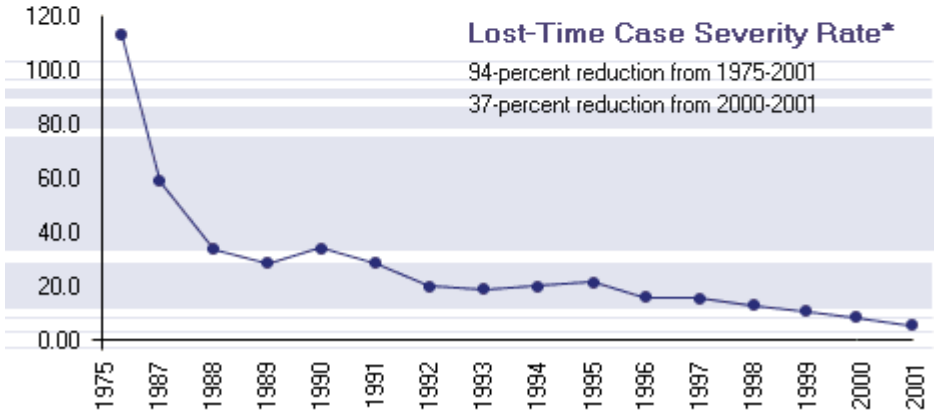
Lost Time Incidence Rates
John Deere Worldwide Units



*Cases involving one or more days away from work per 200,000 employee hours worked



*Days lost per 200,000 employee hours worked

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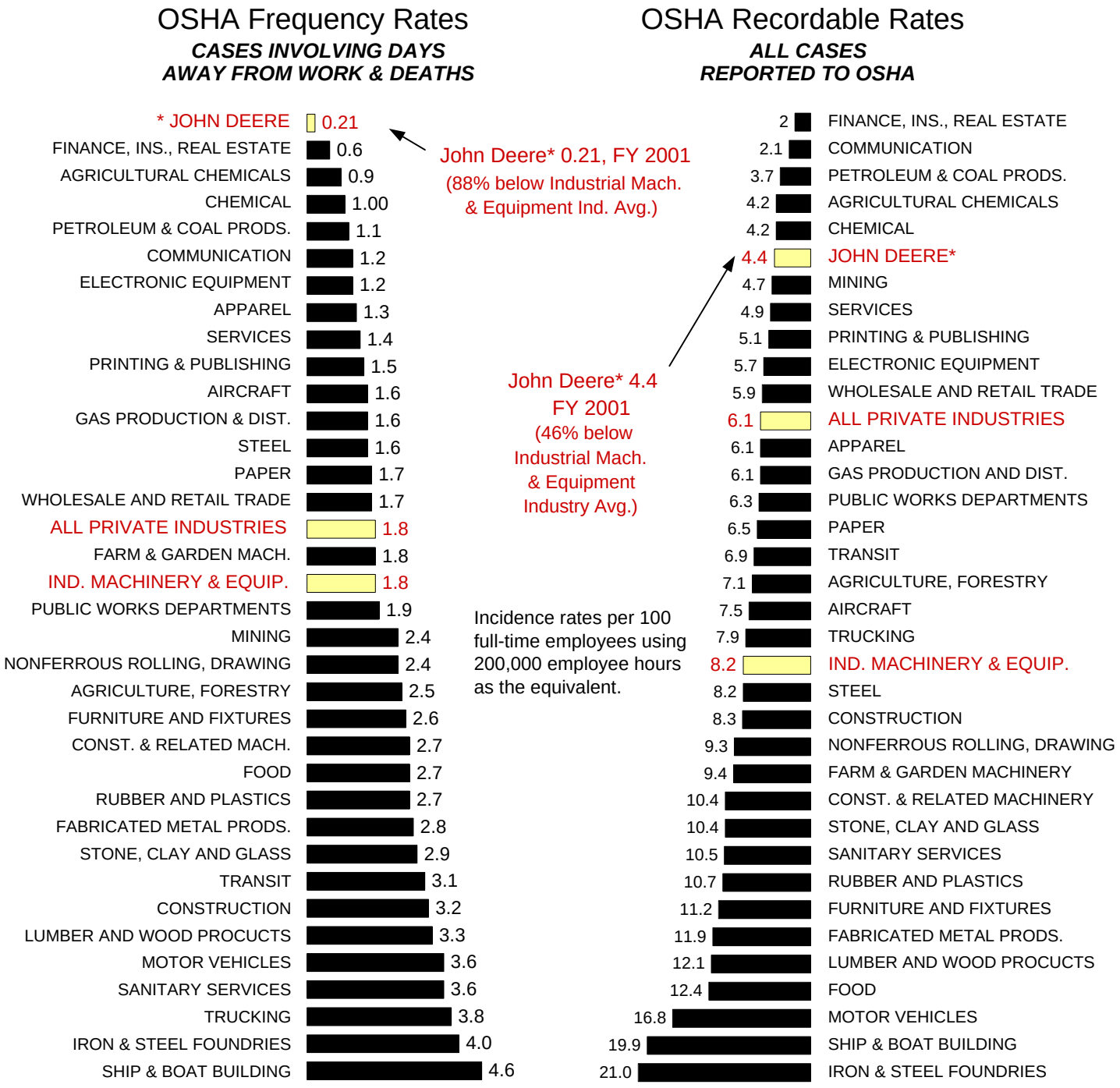
2000 Injury & Illness Rates
Reported By The Bureau of Labor Statistics



* John Deere U.S. & Canadian Factories

Safety

Worker safety: John Deere proves it's possible

John Deere Domestic Facilities have many units working in the range of three million hours without a lost-time injury, and two others had amassed eight million hours as of October 2001. Here's why John Deere employees are 45 times safer while at work than they are after they leave the factory floor.

By Billie Swift. Reprinted with permission from Risk Management magazine, December 2001. Copyright 2001 RMSP, Inc. All rights reserved.

In 1975, Deere & Company declared workplace injuries to be inherently preventable events for which management is responsible. This recognition--looking at workplace injuries as controllable events, or, more important, as events that should be controlled, rather than as inevitable facets of the job--sent Deere on a path to becoming a leader in the pursuit of worker safety.

The company took conscious and active control over and responsibility for the health and safety of its employees. The result? A work environment where employees are 45 times safer while at work than they are after they leave the factory floor.

The First Step: Stop Talking about Safety and Start Managing It

Deere & Company, based in Moline, Illinois, is a leading producer of agricultural, construction, forestry, lawn and turf care equipment. Two of its executives, Ralph Grotelueschen, director of safety standards and environment, and Gary Kopps, manager of occupational safety, lead the company's present day worker safety program.

When talking with the two of them about their program, their enthusiasm becomes contagious. Listening to them discuss the features and effectiveness of Deere's program is enlivening, to say the least.

When Deere began developing a worker safety solution back in 1975, it first had to define the terms of its problem. To do this, it followed a logical line of reasoning: workplace injuries are accidents; accidents are preventable events; management must take responsibility for preventing accidents.

In 1975 John Deere decided that even one day of lost time due to a workplace injury was too much.

Ted Wire, the former manager of product and occupational safety, had been active with the National Safety Council and is credited with providing much of the impetus for the development of Deere's management-based, continuous-improvement approach to workplace safety.

Wire's first step was to speak with each factory manager on the causes of accidents within their domain. Together, they reviewed the frequency of past accidents, categorizing them as resulting from acts of God, failures of design or the behavior of people. Acts of God led the pack, but Wire was not convinced.

He took pictures of the work areas where many accidents occurred and showed these to the management teams. He convinced these teams that the majority of injuries were a result of their failure to understand the root causes of accidents. He asserted that a plan of action needed to be developed and carried out, year after year, in order to bring down the number of lost time injuries.

Wire worked with management to establish an attainable frequency rate and metric, then devised a plan to specifically address and prevent 50 percent to 70 percent of the most frequently occurring accidents. By virtue of design changes, training activities and personal protective equipment, Deere had an astounding decrease in injuries right from the start.

Working through the Problems
The road to Deere's eventual success, however, was not always easy. At times, it struggled, finding itself in ruts or needing to reevaluate its program.

The first problem occurred only a few years after it began implementing its workplace safety program. It happened early in the careers of both Grotelueschen and Kopps, roughly around 1978, and taught them both a valuable lesson.

"A group decided [that] what we would do was be compliant and meet every OSHA (Occupational Safety and Health Administration) standard," says Grotelueschen. "Promptly, our accident frequency rate went up about fifty percent."

Rather than blame this stumbling block on OSHA, Grotelueschen and Kopps instead saw this as a failure in attitude and perspective on the part of Deere. When the department decided to meet a standard rather than solve a problem, it had changed its approach, as Grotelueschen explains, "to thinking that we were managing an inanimate program of safety." Deere had momentarily lost sight of its purpose-the program had become a set of rules to comply with, rather than a commitment to ensuring workplace safety.

"If you wait until a regulation is established," says Grotelueschen, "and then wait for what the regulation says is the standard of performance, you're going to be legal, but it will cost you a lot of money. It's much wiser to be proactive in voluntarily establishing standards or voluntarily preventing problems so regulations are unnecessary."

After Deere worked out the initial kinks in its program, the results surprised everyone. By the early eighties, Deere was on its way to achieving unprecedented figures in lost-time injuries. Then, in the mid-eighties, came the next problem.

"I think the biggest surprise to us came when all of a sudden we had no improvement," says Grotelueschen. "It was like we were right back where we started, only we were maybe eighty percent better."

Up to that point, Deere had been experiencing close to ten years of continuous improvement. Evaluations, frequency rates and metrics revealed that this suddenly static improvement rate was being created by ergonomics-related soft tissue injuries.

At this point, Deere's commitment to ensuring workplace safety is most apparent. It had accomplished an 80 percent improvement in its lost-time frequency rates-a formidable accomplishment by any measure- and had won many awards. Rather than shying away from the ergonomic challenge, however, Deere kept true to its goal: a zero lost-time frequency rate.

"At that time," says Grotelueschen, "we were not familiar with ergonomic management programs. Essentially what it required us to do was get experience in the area of ergonomics so we could deal with sprain and strain injuries."

The Results
More than twenty-five years later, Deere has accomplished an incredible record of safety. Since 1977, John Deere Domestic Facilities have received 440 National Safety Council safety awards, 32 in 2000 alone. It has reduced its lost-time case frequency rate by 93 percent, and as of October 2001, it had reduced that rate by 18 percent. Since 1975, it has reduced its lost-time case severity rate by 95 percent, and as of October 2001, had reduced that rate by 38 percent.

Along with the overall company success, John Deere Domestic Facilities have had many units working in the range of three million hours without a lost-time injury, and two others had amassed eight million hours as of October 2001.

Turf Care, based in Fuquay-Virginia, North Carolina, opened its doors in 1997. Over three million hours later, it had not had a single lost-time injury.

The Iowa, Davenport Works facility, which manufactures heavyduty equipment, had, as of October 2001, a company-wide record of 8.2 million hours without a lost-time injury, a feat for which it will receive a "major celebration."

These celebrations are a part of what Kopps and Grotelueschen refer to as the final step in the worker safety program.

"All of our John Deere facilities make no hesitation to properly recognize employees when they reach a milestone," says Kopps. "What this does is let all employees know that this is the kind of behavior that is respected; it's the kind of behavior that makes us successful; and more importantly, it's the kind of behavior where nobody gets hurt."

Deere keeps track of its many facilities on a monthly scorecard called the Green Sheet. The Green Sheet combines all of the important safety metrics from each factory, ranks them and sends them out to everyone in the company, from the chairman of the board to the employees on the floor.

"Everyone knows where each facility ranks in every one of our key metrics," says Kopps. "When you are at the bottom of this scorecard it is not a very good idea to stay there very long."

Being a member of a working environment where safety is such a high priority boosts the morale of the workers.

"What we're finding today is that anytime you improve the workplace, you're improving the sense of wellbeing of the employees and their personal satisfaction," says Grotelueschen. "Receiving all the National Safety Council awards adds an extra incentive because they can now take pride that they are the safest workers in our industry. Finally, there is the confidence that, if you're working at John Deere, you're going to come home at night with the same physical capabilities you left with in the morning."

As Kopps explains, accomplishing these results requires a common goal and a determination to see it through to the end.

"When you create a vision," he says, "and you focus all your activities towards that vision, people will aspire to that and do all the right things to make that happen."

The Importance of Management
The most important element for success, as Wire first postulated back in 1975, is ensuring the commitment of management-from every level.

During a speech at the John Deere Occupational Safety & Health Conference in October 2001, Robert Lane, chairman and CEO of Deere & Company, had this to say about Deere's philosophy:

"I subscribe to the school being formulated by a growing number of experts that safety and health are inextricably linked to bottom line results. . . . Employees bring a spirit and a will to work, not just their bodies. To achieve peak performance in other areas, they must feel their employer cares and respects them as important and valuable human beings."

Having a dedicated staff, from the wage employee to the CEO, is vital to success. Kopps thinks one reason some companies may have difficulty implementing a safety program of their own is that they do not understand the importance of getting everyone to approach the issue from the proper standpoint and to realize the myriad positive results.

"I think, from my experience," says Kopps, "a lot of people may not do as good a job as they would like to because they don't speak in management's language and communicate to them in ways that they can see the benefits and I'm not just talking about money. Like Ralph said, we found that when you improve the safety performance, there's many, many benefits; increased efficiency is one of them but, certainly, increased morale. People know that you care and this becomes a great teambuilding endeavor."

Deere's efforts to link all employees have attracted the attention of other companies that come to benchmark its performance. "One of the things that they are very impressed with after they visit us is the amount of involvement that everybody in the whole John Deere organization has with the safety process. You've got to have that kind of synergy and effort going on or you will have conflicting goals taking place."

As an example, Deere's general managers have weekly meetings at all of its facilities. According to Kopps, the number one thing they talk about is safety performance: "Where are we? Are we on track with our safety goals? What can we do to improve?" The general manager holds all of his operation managers accountable for this improvement; and the safety staff and environmental health professionals are responsible for supplying the management team with information to effectively manage safety.

"Why are we where we are?" Kopps asks. "It's because safety performance is held accountable to the right people-the management team-because they drive all the process activities."

International Success
While John Deere Domestic Facilities have accomplished great results at its American facilities, its success is not isolated to the United States.

"I am privileged to visit all of our facilities in the world," says Kopps. "After a visit, I feel proud to be associated with the John Deere organization because, on the whole, every facility-I don't care whether it's in Europe or South America or Canada or here in the United States-each unit has safety as a main process to aspire to."

While promises of safety on a worldwide level are often met with skepticism, Deere is up to the challenge.

"When we rolled out our management system in Mexico," says Grotelueschen, "I think the only people that believed it would work were the general manager at the Mexican factory and the Deere safety people. [But] the first two years we put this program [in Mexico] we saw a seventy percent improvement, so we know this process works anywhere around the world."

Sharing Best Practices
Grotelueschen is quick to point out other companies that are "making equal improvements." He notes two examples, DuPont and Intel, and explains how DuPont and Deere have worked rather closely, sharing effective workplace policies and achieving similar results.

"DuPont has a long history," says Grotelueschen. "They're doing the same thing we're doing. They are using a continuous improvement program that's management driven. They've got a good management system in place, they're attacking the root causes of accidents and they're preventing them. Recently, we have used the DuPont STOP program for training, and it was very helpful in creating safety awareness and providing a proactive attitude towards fellow employees in preventing accidents."

Another example of successful companies working together to improve workplace safety is the Industry Cooperation on Standards and Conformity Assessment's Industry Guidance on Health & Safety at Work- a set of guidelines to implementing a system similar to the Deere program.

The Next Goal: Safety at Home and on the job
In-house statistics show that Deere employees are forty-five times safer when they are at work than they are when they are outside of the factory. Its next goal is to make sure employees are safe off- the-job as well.

"Each facility will set forth process activities to make their people aware of the off-the-job statistics," says Kopps. "Those facilities will then conduct

safety awareness sessions and distribute metrics that will monitor their off-the-job progress. We are going to require in our goals and objectives form for fiscal 2002 that facilities put some metrics together to monitor off-the-job performance." These are the same steps that started Deere off in the right direction in 1975.

"We've stuck pretty much to the basics. We set goals and objectives each year and ask all stakeholders to sign something verifying that that specific action plan will be completed. If this is done, it is no surprise that accidents decrease."

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Safety

Cultivating Safety at John Deere

The leading manufacturer of farm equipment also is leading the field in workplace safety.

By Karen Gaspers, Associate Editor. Reprinted courtesy of *Safety+Health Magazine*, June 2001

Located near the banks of the Mississippi River in Moline, IL, John Deere is known as the world's largest manufacturer of farm equipment and a leading producer of industrial, forestry and lawn-care equipment. But the company is known for more than just its huge combines and farm tractors - it is also known as a leader in safety, health and the environment.

Its peers recently chose Deere as "most admired company' in its industry segment in *Fortune* magazine's annual survey of corporate performance. Deere scored highest in the social responsibility category, which includes the company's efforts to keep workers safe.

Zero An- and Off-Job Injuries and Illnesses Goal

In 2000, the company's lost-time injury rate at its U.S. and Canadian factories was 0.18, well below the industry standard for industrial machinery and equipment of 1.09 and surpassed only by office workers. Now Deere is aiming to reach zero for on- and off-the-job injuries and illnesses for 2001.

How does a company arrive at this point? At corporate headquarters, Ralph Grotelueschen, director of safety, environment and standards, and Gary Kopps, manager of occupational safety, both say the key is Deere's safety management system. According to Grotelueschen, the system is a continuous improvement process that includes company-wide commitment, planning, risk analysis, implementation and process review. Contained within each of these areas are many sub-elements that enable Deere to carry out each function.

For example, risk analysis involves resource analysis and audits of the types of accidents occurring at each unit. Implementation involves using safety metrics, metric reporting, a review process and training on new methods. Results are then communicated to all employees.

But the starting point is that "management - and this is clear within Deere - recognizes that accidents can be prevented," Grotelueschen says. It is management's responsibility to ensure effective goals and objectives are established and followed through, he says.

One way management demonstrates follow-through is via what are known as "green sheets." Green sheets report the month-to-month safety performance of each manufacturing unit, noting the lost-workday case rate and recordable case rate, along with the industry average, per Bureau of Labor Statistics data. It also notes lost- time frequency rates and lost-time severity rates, as well as descriptions of each accident that resulted in a lost-time or restricted workday case. The report is distributed to all employees and posted in each unit.

When an officer notices his or her unit is showing up on the report with high rates of injuries or illnesses, he or she will call the general manager at that unit to find out what is happening.

"That could initiate a whole range of things - it could initiate audits," Grotelueschen notes.

Employee Involvement

But management - no matter how good the process cannot do it alone, Grotelueschen says. To succeed, the process needs employee buy-in. Employee commitment evolved when Deere asked employees, from management to wage earners, to participate in safety committees and add their input to the process.

"In a good safety culture, the empowerment process must involve allowing the employees to work on their operations, their programs and the planning process as much as senior management," Grotelueschen explains.

Kopps calls it the "grass-roots approach" and points to ergonomics as an example of how involved employees have become. Originally, Deere assigned ergonomic coordinators from the engineering department to determine how the company could prevent cumulative trauma injuries. But corrective changes took a long time - the engineers had to write shop orders, create drawings, etc. In order to achieve better turnaround time, Deere decided to solicit the help of the people most directly involved in the problem - the shop floor workers.

"When we finally got the people who were most directly involved in this, let them have ownership in the process and time to make corrective changes, we saw our cumulative trauma rates go down right along with it," Kopps says.

The shop floor workers are not only skilled, he adds, but they also "usually know all the people they are working with so people trust them and know they can help." That trust further enabled the process to gain momentum.

Achievement Takes Time

The development of the safety and health program at Deere did not happen overnight. Although it was implemented in 1975, it has taken the company until this year to establish zero incidents as an attainable goal. The program has evolved over time, requiring a major shift in how everyone at the company views safety and health. Grotelueschen and Kopps have both been with Deere long enough to remember when accidents were considered "acts of God" rather than preventable.

"We feel like we finally got the accident rate low enough, and the cultural commitment throughout the enterprise extensive enough, that we can now switch to zero as a really targeted activity," Grotelueschen says.

Grotelueschen and Kopps are also forthright about the bumps in the road the program has experienced. Grotelueschen recalls one period when the company decided to focus completely on OSHA compliance as its safety program. "We were going to solve everything via design," he remembers. Instead, Deere experienced a 30 percent increase in accidents.

"We took responsibility away from the employees," Grotelueschen says. "Luckily this thing happened in the early 1970s, so we learned early." In the end, deviations from the program have reaffirmed that the program needs to be kept simple and focused, Grotelueschen says. That means focusing on preventing accidents.

Safety in Action

How does the program operate once it moves out of corporate headquarters and into the actual workplace? One model is the company's Harvester Works unit. Harvester is Deere's second largest manufacturing unit with 2,240 employees at three separate facilities. The East Moline, IL, plant manufactures combines and headers; the Silvis, IL, facility produces cylinders; and the Moline, IL, plant is devoted to product development.

Harvester holds the farm machinery and equipment industry record for continuous employee-hours worked without a lost-time injury or illness - almost 7.7 million hours logged between September 1996 and March 1998. The plant has just surpassed 2.9 million hours in its latest run.

At Harvester, safety committees are abundant and cover topics such as ergonomics, chemical review and off-the-job injuries. Each section of the plant also has a motivational team that provides employee recognition for achieving safety results. Instead of forcing people to join these committees, about a decade ago Harvester turned the committees over to individual areas in the factory.

Interested employees were asked to volunteer, and commit- tees are combinations of management and wage earners.

Although involvement is good, management continually works to keep members motivated. "Groups of people in those assignments, they get a little burned out," notes Dana Sets, operations manager. To combat this, Harvester works to personally recognize its volunteers in ways as simple as gathering the committee together for pizza or coffee and doughnuts.

Ergonomics

A good example of how committees operate and even interact is the ergonomics committee at Harvester. The committee was formed four years ago to reduce and prevent the number of cumulative trauma injuries. It meets monthly and comprises safety analysts, a nurse, engineers and union representatives.

The committee also has two ergonomic representatives who work full time coordinating employee needs. According to Lee Martin, one of the ergo reps, much of the work centers on adjusting the workstation or fixtures to better accommodate the worker. For instance, creating or installing adjustable fixtures that can match the height of different workers as shifts change or when a new employee comes on board.

"It's about eliminating back and arm strain," Martin says. "A lot of workers have to reach under or around something to do their job. If we can eliminate that and make it so that it's in a better position, we do that."

When possible, the team will leave both the old and new fixture in place to give employees time to adjust. "When employees have been doing something a certain way, they want to continue doing it that way, whether it's right or wrong," Martin notes. But rather than force the change on people, the team prefers to give workers the opportunity to accept it on their own. That usually takes at least a week, he says.

For example, Martin designed a new stand on the motor assembly line that workers use to drain oil out of a pump. The old stand required the worker to physically lift and turn the pump in order to drain it. The new stand does the work for the employee.

Visibility Builds Confidence

Another positive is that committee members are highly visible and available to workers on the floor - especially the ergo reps, and nurse and case manager, Kelly Ebalo.

Ebalo says she is out on the floor at least twice a week, and that has allowed her to meet all the employees and become a familiar face. That has made employees more proactive, she says.

"I'll be walking down the aisle and people will say, 'come over here, look at this job.' Not always will they come down to first aid and have a problem. Instead, maybe they have a new design, a new project. They don't have any complaints, but they know if they keep doing this week after week, they may start to have back problems, for example. So we are able to intervene at an earlier stage."

The committee also learns of problems from other committees. Every week safety manager Dick Duncan and staff review the prior week's accidents involving cumulative trauma and look for possible related trends developing in particular sections or around particular jobs.

The report is forwarded to the ergo reps, who then visit with each employee that had injuries to see if the problem can be alleviated from an ergonomic standpoint.

Martin says much of his work comes from that report because not all workers who have a problem will complain – it takes a visit to the nurse's office for the problem to surface.

The committee's hard work is paying off, says John Gault, Harvester's general manager. "I haven't seen a back injury here for a long time. We may have some strains, but some of these injuries have just disappeared right off the radar screen as a result of the ergonomics committee."

In the end, building a solid safety program is a long, slow process. "It evolves, and it takes time," Duncan says. And attitude is the number one necessary ingredient. Worker attitude or management attitude - it takes everybody.

Feature at a Glance

The long-term goal at John Deere is to achieve zero on-and off-the-job injuries. What did it take to reach the point where Deere could perceive that as a realistic, attainable goal?

Key Points

- Management must facilitate good goals and objectives.
- The safety program must solicit the commitment of all employees.
- Committees give workers the opportunity to get involved.
- Change does not happen overnight.
- Motivation, visibility and trust are key elements.

More Information

- John Deere's 2000 annual review of its environmental, health and safety performance is available online at *JohnDeere.com*.
- Results of *Fortune* Magazine's annual "America's Most Admired Companies" survey are available online at www.fortune.com.

High Marks for Social Responsibility

In Fortune magazine's survey, John Deere received its highest marks in the category of social respnsibility. Ralph Grotelueschen, director of safety, environment and standards, says the company takes this responsibility very seriously. For Deere, it means "protecting workers, protecting our customers and maintaining a clean environment," he says.

To meet that challenge, Deere has launched many initiatives over the years. A few highlights include:

- Product safety . Led development of rollover protection structures and cab filtration and pressurization systems to protect the operator from chemicals outside the cab. Active in safety lighting and marking for farm equipment to reduce collisions.
- Protection of environmental resources . Reduced amount of hazardous waste created in course of operation. Developed two-cycle engine technology that lowers emissions from handheld equipment; Deere received EPS's Clean AirExcellence award for its efforts.