

MESSAGE

FROM CHARLES SMITH,
PRESIDENT & CEO

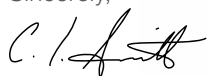
As many of you will recall, we conducted an internal survey of our North America employees asking for feedback regarding a variety of topics about the company and your position. This was part of an initiative by our parent company, which included Wienerberger organizations all around the globe. The results are in, and I want to share the good news about how our company performed.

Our results indicate that we outperformed major high-performing companies within the manufacturing segment and comparable organizations within North America. The results demonstrate that a majority of you held General Shale in high regard in two key areas: enablement (few barriers to overcome in your job's challenges) and engagement (motivation in and for your job).

Additionally, General Shale scored extremely well in these important categories: benefits, management support, jobsite safety, enjoyable work environment, high motivation, well informed, care and concern, sense of pride, and job security.

A great company requires a shared spirit that goes beyond a job title or paycheck. This information is very important in understanding our strengths and where we can improve as a company as we seek to grow our business. I want to thank all who participated in the survey and want you to know our management team is committed to your opinions, suggestions, and feedback.

Sincerely,



Charles Smith
President & CEO
General Shale



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GENERAL SHALE WORK ANNIVERSARIES



ERNIE CALDWELL HEAVY EQUIPMENT OPERATOR 45 YEARS



Ernie Caldwell began work in September of 1973 for Webster Brick, in Roanoke, VA. General Shale acquired the company in 1988 and brought it under the General Shale brand. Ernie stayed on with General Shale, working as a heavy equipment operator in the mining and grinding room departments.

Ernie has also worked within the maintenance group and a few other departments in his 45 years with the company. He has operated a loader at the Roanoke plant since 1995. Ernie said he enjoys the work but is looking forward to his retirement in the next few years.

This is a double anniversary for Ernie, as he is also celebrating 45 years of marriage to his wife, Virginia—who prefers to be called Jenny. They have four kids, nine grandkids, and one great-grandchild to keep them busy. In his spare time, Ernie enjoys the many cars he has collected over the years. His favorite pastime is cruising in one of his classic cars while listening to the oldies.

Special thanks to Ernie Caldwell from the General Shale team, and happy anniversary to Ernie and his wife!



MICHAEL SLOAN COLOR SPECIALIST 45 YEARS



A native of Kingsport, TN, Michael (or Mike, as he prefers) has been with General Shale since September of 1973. He began his career in the mill room and production departments. He first worked in the original Kingsport Brick Corporation plant, which was one of the two original plants that became General Shale in 1928 when the company merged with Johnson City Shale Brick Corporation. Mike then moved into the research department in 1977 as a color specialist.

For the past 41 years, Mike has worked as one of the main color specialists for General Shale. His work has taken him around the U.S. and Canada. His skills are called into service when there is a need for adjustments to finished construction. Usually, Mike works to correct minor inconsistencies that might arise in color and pattern in a building to perfect the look a client wants in the building's brick. Mike uses a proprietary

process developed by General Shale to custom-mix brick stains and toners to adjust the colors in a structure to provide the most aesthetic impact. Once applied, these stains will weather with the brick and provide a permanent solution.

Mike still lives in Kingsport, TN, with his wife of 43 years, Mary. They have one daughter, Amanda. He enjoys golf and working outdoors in his backyard. General Shale would like to thank Mike for his continued service and his help delighting our clients with his special skills.

This quarter, General Shale has another amazing list of team members who are celebrating substantial anniversaries with the company. Each individual in the list has proved to be an integral part of the General Shale family and has been a shining example to those around them. We are very grateful for these employees, and every member of our team, who have made General Shale a leader in our industry throughout the years. As we regularly do in this segment, we'd like to feature those individuals who are celebrating 40 years or more with General Shale. With a lifetime of experience and knowledge in our organization, these team members are a testimony to General Shale's commitment to being a great place to work and grow.



CHRISTIE AKERS

CUSTOMER SERVICE REPRESENTATIVE

40 YEARS



Christie Akers started her career in the Webster Brick Company in October of 1977 while finishing school at Roanoke College in Salem, VA. Her first position was working as an administrative assistant for the Vice President of Finance. At the time, Christie's father, Paul C. Blair, was the President/CEO of Webster Brick Company. Paul had been at the company for his entire career, working his way through the ranks, so the brick industry has always been a part of Christie's life.

In August of 1988, Webster Brick became part of the General Shale family, and Christie transitioned into a sales position, where she found her true calling. Her sales mentor, Don Ballard, was then the Customer Service Manager. Don moved on to other positions but eventually returned to Roanoke—which was always home for him.

Christie has two children, Lauren and Scott, and five grandchildren. Her grandchildren, ages 4 to 13, are the most important part of her life. She spends as much time as possible with them, and she is an avid reader in her leisure time. Christie is very proud to have reached her 41-year anniversary, and she looks forward to many more anniversaries to come. General Shale is very grateful for the example she sets for others.



JAMES HARRIS

FORKLIFT OPERATOR

40 YEARS



James Harris joined the General Shale team in August of 1978. His first position was as a brick loader at the Sanford, NC, plant. James is originally from Bunnlevel, NC, which is just north of Fayetteville. He worked for years at the Sanford, NC, facility in several different departments and then a forklift operator. He moved to the Moncure, NC, facility about five years ago, where he was a truck loader and then as a forklift operator. Today, he continues to work as a forklift operator at that facility.

James and his wife enjoy spending their free time with their two kids, four grandchildren, and two great-grandchildren. James works closely in his local church as a Sunday school teacher and as Chairman of the Trustees. We are very grateful for the continued hard work James has provided to our team and wish to congratulate him on this milestone anniversary.



Each quarter, General Shale wants to thank and recognize employees celebrating employment milestones in the company. We appreciate your dedication and commitment.



Alvin L. Buis	Mooreville, IN	35
William D. Green	Johnson City, TN	35
Aubrey W. Florence III	Manassas, VA	35
Allen W. Johnson	Mooreville, IN	35
David Green	Spring City, TN	35
Douglas W. Howell	Roanoke, VA	35
Katie J. Craig	Roanoke, VA	35
Stephen Peals	Rome, GA	30
Jeffrey L. Anderson	Johnson City, TN	30

NAME	LOCATION	YRS SVC
Joseph M. Badgett	Mooreville, IN	25
Barry W. Franklin	Roanoke, VA	20
Christopher W. Tipton	Grover, NC - CCP	20
Justin A. Greaser	Chattanooga, TN	20
Bryan Lloyd	Moncure, NC	15
Jason E. Perkins	Roanoke, VA	15
James T. Wilkinson	Charlotte, NC	15
Robert C. Helbringer	Manassas, VA	15
John G. Till	Denver, CO	10
Johnny B. Harley	Rome, GA	10
Christopher M. Mckay	Roanoke, VA	10
Franklin D. Morgan Jr.	Spring City, TN	5
Floyd A. Smith	Wister, OK	5
Steven H. Higgins	Moncure, NC	5
Rachael E. Vernon	Johnson City, TN	5
Dustin D. Mayberry	Rome, GA	5
Cameron P. Clay	Rome, GA	5
Robert B. Reed	Spring City, TN	5
Harold J. Derrick	Tri-Cities Block	5



DALE TACKABERRY
WIARTON QUARRY - 35 YEARS

PEOPLE ON THE MOVE



One of the things that helps make General Shale a leader in our industry is the incredible team of professionals who have committed themselves to our company mission and goals. We are constantly reinvesting in our team members to ensure they have the opportunity to grow and improve in their roles. Each month, General Shale publishes a list of team members who have been promoted into new positions and responsibilities. You can always view the “People on the Move” section on iComm to see the employees who are growing in their careers at General Shale. We are very excited to include the latest set of promotions in our newsletter as well. Below are this quarter’s promotions. We want to send our congratulations and our sincere thanks to these team members as we look forward to the impact their new roles will have on the company as a whole. Congratulations!



**Felicia
Vanslager**

*Accounting Manager to
Director of Finance
Pipelife Jet Stream*



Andy Hall

*Corporate Development
Manager to
V.P. of Sales
Pipelife Jet Stream*

FROM BIRDIES TO BIRD’S-EYE VIEWS



Our team is made up of an amazing group of talented individuals. We have so many gifted people who have joined the General Shale team. We’d like to showcase one of our very own for his past accomplishments. Chip Spratlin, General Shale’s company pilot, has had the opportunity to soar through the skies for the company across the country. While at Auburn University, he made the golf ball soar as a member of the school’s golf team. Before that, Chip played golf at Science Hill in Johnson City, TN, and was not highly recruited as a senior. However, his family had ties to Auburn and wrote the coach to request a tryout for the team. The Auburn coach gave him a spot on the team after watching him play at the Junior Masters in Dothan, AL. Chip redshirted his first year and played just one match his second year. By his junior year, he was a regular on the team and helped the Tigers finish seventh in the NCAA tournament. As a senior, he nearly won the SEC individual title, and the Tigers just missed a team title. In the NCAA finals at the Scarlet Course in Columbus, OH, Chip bested a field of players that included one Tiger Woods to win the NCAA individual title—the only Auburn player ever to do so. General Shale would like to congratulate Chip on his past accomplishments and thank him for his continued spirit of teamwork and excellence as a member of our team.

ASSISTANT PLANT MANAGERS MEET TO BUILD TEAM DYNAMICS



This quarter, a meeting was held to support assistant plant managers (APMs) working in each plant around the country. This was the first meeting focusing on our APMs in several years and was organized to help all our APMs understand the plans, goals, and tools General Shale has developed to help them support their plant teams. The main goal of this event was to help all APMs get in sync and share ideas and processes that they have implemented at their respective plants.

The APM meeting was hosted at General Shale's plant in Piney Flats, TN, and it included most key department heads. This allowed each APM to meet and interact with key contacts who will be a critical resource for them, and their teams, as they return to their respective plants. The meeting included department vice presidents and managers from specific areas of the business. The meeting also included General Shale regional production managers, to help give regional guidance to the discussions. The APM meeting covered key information from safety, compliance, scheduling, human resources, accounting, and environmental policies—just to name a few. There was also time set aside to

Those attending on behalf of their plants included:

Pete Kurowski – Mooresville, IN
Dustin Mayberry – Rome, GA
Stacey Whitt – Fort Valley, GA
Steven Higgins – Moncure, NC
Edwin Ellis – Grover, NC
Jim Bergman – Denver, CO
Clayton Ray – Roanoke, VA
Dustin Deakins – Spring City, TN
Jaba Castro – Columbus, MS
Tony Fabrizo – Denver, CO

introduce and update the entire team on plants that have recently been added to the General Shale family, such as Pipelife Jet Stream and Columbus Brick. This gave the APMs the opportunity to meet the contacts at each of these facilities and begin building relationships with one another.

This meeting was used as an opportunity to provide some key insights into specific topics that will be important to continued growth and success for the company. These included new technologies for better interviewing, stormwater management, using Google Earth to understand materials,

and an opening discussion on the General Shale production goals and pathway forward.

The event also included team outings to help cultivate friendship and professional camaraderie among the assistant plant managers. General Shale understands the importance of ensuring that professionals in key roles, such as APMs, are critical to keeping each facility on track to meet company goals. These team members also are a key part of helping foster the General Shale company culture within their facilities. Events such as the recent APM meeting will help develop these professionals, align them to overall company goals, provide them the opportunity to grow their professional network for support, and equip them with the tools and information they will need to succeed.

General Shale would like to thank all the APMs who participated in this event, as well as all other staff and presenters who participated and supported the success of this event. We look forward to seeing how this event impacts the growth and success of all our plants and their teams moving forward.

DENVER CELEBRATES 1 MILLION HOURS OF SAFETY



The Denver plant celebrated an important milestone this April, having accumulated over a million hours of safe work. Our team achieved over one million work hours without experiencing any accidents that resulted in an employee missing a full day away from work to recover. This is a great accomplishment and is a testament to the team of professionals who have worked so diligently to make the plant a safer work environment.

Mark Kinser, Dan Green, Scott Miracle, Brian Ogle, and John Hammett traveled to the Denver plant June 19 to participate in a special celebration to congratulate all the employees for their diligence and hard work. The celebration began at noon with a catered barbecue lunch, followed by some great giveaways for those who qualified. General Shale Safety and Risk Manager Brian Ogle gave a brief presentation thanking the Denver plant staff for their efforts and for reinforcing the company's drive to achieve safe production every day. All attendees were also presented with a T-shirt for the event to show their accomplishment.

General Shale has a deep commitment to providing a safe work environment for all our employees. We know that fostering a clean and safe working atmosphere and training all staff members on best practices to safely and efficiently accomplish their work goals not only makes for healthier and happier team members but also makes a better product for our customers. The leadership demonstrated by the Denver plant staff is a prime example of this directive and an inspiration for all our locations. This is the second plant in the General Shale family to accomplish this incredible milestone. The first to reach this goal was our Spring City plant, which we also want to recognize and congratulate!

We want to give a special recognition and thanks to Harold Stickler and Jim Bergman for their work putting together the celebration event. General Shale looks forward to more celebrations like this at other plants very soon! In the meantime, we hope all our employees around the country join us in helping build the safest and most effective teams in the brick industry.



WHAT'S HAPPENING

DAY OF CARING 2018



General Shale is a strong and active member of our communities around the country. We were pleased to have a large group of volunteers participate in the 27th Annual United Way “Week of Caring” this past June in Johnson City, TN. The team from General Shale worked on a large landscaping project at Coalition for Kids. They worked to dig trenches for landscaping, planted more than 75 plants, placed pavers, and cleaned up the outside areas. All costs were taken care of by General Shale. We want to thank all those who volunteered their time to participate in the “Week of Caring” event from General Shale. Your service makes a difference, and we are very proud of everyone who has set the General Shale example for our community.

On Tuesday evening, April 10, General Shale hosted the annual Bucs and Bricks event, in conjunction with East Tennessee State University (ETSU), at our corporate headquarters.

The event, which is promoted to students and faculty at ETSU’s School of Business and Technology, is an opportunity for rising and graduating seniors to introduce themselves to the company as prospective employees and practice their professional etiquette skills. Interacting with the students were various staff members from the company’s manufacturing, sales, engineering, logistics, finance, marketing, and HR departments.



BUCS & BRICKS 2018



IN JOHNSON CITY, TN

CELEBRATING JULY FOURTH



This past July, General Shale held a special Independence Day event to celebrate together with our team. The event was held at General Shale headquarters in Johnson City, TN, and included food, fun, and fellowship. We invited local retirees to join us for the event and had a great turnout. The highlight of the event was the dessert contest, where anyone could bring his or her favorite dessert to share and compete. General Shale President and CEO Charles Smith judged the contest.

We want to thank everyone who organized and helped make the picnic a success, and all those who came to celebrate with us. We hope our employees at all our locations had a great holiday and enjoyed their time with family and friends.

In early April, General Shale participated in the second Annual Career Quest TN event on the campus of East Tennessee State University. Career Quest is an interactive career fair focused on STEM (science, technology, engineering and math) career opportunities. More than 5,000 middle and high school students from East Tennessee and Southwest Virginia attended the event, where they had the opportunity to explore vocations in construction, advanced manufacturing, health care and information technology with hands-on, interactive exhibits. General Shale's exhibit featured one of the company's mobile product displays and virtual reality goggles, allowing students to experience a variety of manufacturing processes, including heavy equipment and robotic operations.



CAREER QUEST TN 2018





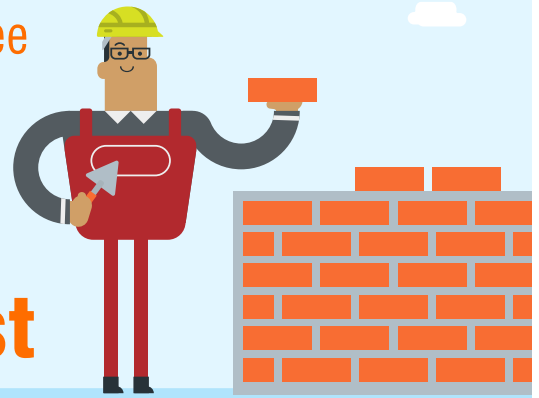
Notes from the 2018 NCMCA Annual Meeting

Carson Greif, Architectural Sales Representative, and her husband, Clinton, joined Matt Mara, District Sales Manager, and his wife, Teresa, at this year's North Carolina Masonry Contractors Association (NCMCA) Annual Meeting this past April. The event brings together masonry industry professionals and companies from around the country to discuss current trends and new industry information to promote growth for all members.

This year's event was held at Grove Park Inn in Asheville, NC. Coordinators provided key industry information on new regulations, safety standards, industry market data, chapter reports, and much more. Association meetings such as this one are key to understanding new opportunities and regulations so that General Shale can continue to play a leadership role in our industry. This is one of the largest masonry contractors state conventions in the country and typically hosts contractors from around the United States. This year, masons from Texas, Ohio, and Arizona were in attendance.

One of the more exciting moments came during the Saturday golf outing. A large black bear decided to scamper across the green where Carson was playing, and she snapped this photo. We're glad everyone was safe and the team finished without incident.

2018 Samuel A. McGee Masonry Apprentice Skills Contest



The North Carolina Masonry Contractors Association (NCMCA) held the Third Annual Samuel A. McGee Masonry Apprentice Skills Contest to give young masonry professionals the opportunities to demonstrate their skills and learn best practices for the masonry construction industry. The NCMCA Metrolina chapter hosted the event at the Oldcastle facilities in Charlotte, NC. Thirty-eight contestants from nine NCMCA member firms participated in the event.

The event gave each participant a specific set of skill challenges to give them the opportunity to problem solve, show specific masonry skills, and present a finished piece of craftsmanship. Jamison "JK" Huntley retained his championship from 2017 by repeating his winning performance

in the 2018 contest. Every contestant left with tools and cash prizes contributed by NCMCA member firms. The contest is named in memory of Sam McGee, who passed in 2015 and was recognized as a masonry industry leader and innovator all across the area. He was inducted into the Mason Contractors Association of America Masonry Hall of Fame in 2014.

General Shale is a proud sponsor of the event, providing all contestants with the materials they need to participate. These events are very important to support the growth and training of the next generation of masonry professionals. We want to thank all those who coordinated the event, and congratulate JK Huntley and we all the participants for their hard work and commitment to perfecting their skills.



General Shale and North Georgia Brick companies are continuing their partnership with Habitat for Humanity in 2018 by donating brick and masonry supplies to build 15 Smyrna-based NW Metro Atlanta Habitat homes this year. General Shale will be donating, all bricks for the homes while North Georgia Brick will be contributing sand, mortar, and all other masonry supplies needed for the construction. The donations follow the companies' 2016 donations for 30 houses in honor of NW Metro Atlanta Habitat's 30th anniversary.

"General Shale considers it a privilege to continue our partnership with NW Metro Atlanta Habitat for Humanity and assist in providing safe, affordable housing for families," said Myra Costner, District Sales Manager for General Shale. "Along with North Georgia Brick, we're honored that our contribution of brick, mortar, and additional masonry supplies will support the construction of 15 new Habitat homes."

"Enough cannot be said about how helpful these donations will be in changing families' lives in our community," said David McGinnis, Habitat President and CEO.

Wienerberger/General Shale was an "Iron Sponsor" of this year's Home Builders Blitz through a combination of cash and gift-in-kind donations. In 2018, more than 250 homes were built, renovated, and repaired in communities across the U.S. the week of June 4-8, as thousands of professional homebuilders and suppliers partnered with Habitat for Humanity. Throughout the week, industry builders and suppliers volunteered with Habitat in more than 70 communities in 31 states. In addition to sponsoring the entire Blitz financially, General Shale also donated blocks, bricks, mortar, and ladder wire sufficient to build four homes in York County, SC.

General Shale has offered financial and material support to the Habitat for Humanity program as a way to demonstrate the company's commitment to the community and local economy. These programs are vital to the growth and stability of local areas, and we are excited to be involved. We want to extend a special thanks to all the members of our team who work and volunteer in community organizations.

BUILDING A BETTER COMMUNITY WITH GENERAL SHALE

Meet Brittanie and Cesar

Two of the new home owners

"Being in the Habitat program has helped me learn a lot of things—like never give up, no matter what may come my way. I have learned that I am much stronger than I thought I was. Habitat for Humanity has taught me things that I will never forget and to always believe in myself—to never give up, and for that, my kids and I will be forever grateful"



Brittanie McNeil is a single mother of three kids—two girls, ages 11 and 6, and a little boy, age 9. They are very excited about having a home built and having a yard to play in. Brittanie began a partnership with Habitat for Humanity in 2017, as she had been looking into purchasing a home for a while but could not get approved for a homeowner loan.

Cesar Sleh, a native of Liberia, came to the United States in 2004. After initially living in Utah, he moved to South Carolina, but his three children—two boys and one girl—still live in Utah. They will be moving to live with Cesar upon completion of the home.



"I found out about Habitat through a friend who at the time was becoming a Habitat homeowner. I decided to reach out to Habitat for Humanity of York County to begin this journey. At the first meeting, I met a lot of people, and they were giving their testimonies, and it made me very interested. At the time, I knew nothing about house buying or construction, but the Habitat program has taught me more than I could ever imagine. Habitat staff helped me to get the necessary information to guide me on this new journey. When my home is complete, my children will come to live with me. I will get to be stable, and I will get to be a dad"

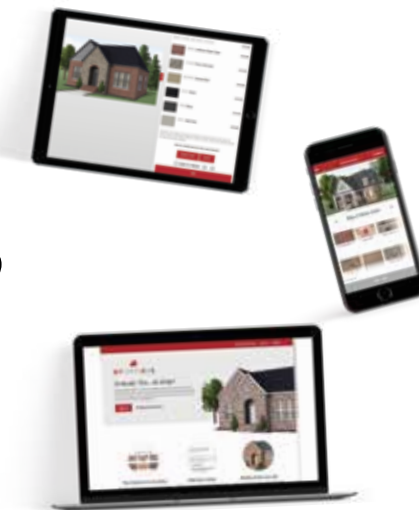


GENERAL SHALE LAUNCHES NEW APP



General Shale recently launched “My Designs,” an all-new app developed to help customers and commercial developers choose material options for their next building project. The app allows users to quickly and easily envision how our products will look in finished construction.

The My Designs app is a powerful tool that was created in response to feedback from many customers and clients, who said they would like to have a digital resource to see what options are available and how product combinations may appear in a project. With color pattern variations, material dimension differences, and



many different textures available, it can be overwhelming to decide on the best materials for a specific project. The My Designs app will help customers narrow down choices as they begin to make their final decisions.

My Designs allows users to easily review and adjust designs quickly and accurately. This digital representation can give a much more complete view of a particular design idea, rather than just using samples and photos of similar projects. It allows users to evaluate hundreds of product combinations and find that signature look they desire.

Here are just a few of the key features of the new app:

- Fast and flexible viewing of exterior building design options
- Choose a building type (both residential and commercial) and exterior style
- Select from brick, stone, and/or vinyl siding options
- Easily communicate or share your designs with others
- Customers can quickly locate the nearest General Shale location



My Designs is filled with over 50 of the most popular color and pattern options for General Shale and Arriscraft products for the perfect look. There is also a list of roofing and siding materials and colors to help users get a feel for how the finished project will look.

Once users have chosen a structure to represent their project, they can select materials for each section of the structure separately. This gives them the ability to integrate “accent” areas with different materials such as stone or a different color brick. Giving this level of customization has taken a great deal of time and design, but the finished product is a powerful tool with a great deal of unique features. The user interface is intuitive and contemporary in its execution, giving a very easy-to-navigate and unique design experience. As the first fully interactive app of its kind, exclusive to the General Shale and Arriscraft catalogs of masonry and stone products, the goal of My Designs is to become an invaluable tool for customers, distributors, developers, and sales teams. It is also a tremendous research tool for the General Shale marketing team, as it provides insight into customer behaviors and popular design combinations. This data can be used to plan for future products and marketing programs.

Luke Guinn, General Shale Marketing Manager, explained, “As we look forward to expanding the functionality of My Designs, we understand the ultimate success of the app depends on the support and feedback of our employees at every level. We are planning on incorporating their ideas in future updates.”

The My Designs app also allows customers to quickly find and connect with their local General Shale retail locations and participating distributors to learn more about General Shale and Arriscraft products and schedule a time to discuss their project. With a visual reference available, customers will find making the right selections to be a much easier process.

The My Designs app is currently available for iOS smart devices (supported on both iPhone and iPad) through Apple’s App Store. Simply search for “General Shale My Designs” to find and download the app. You can also enjoy the same functionality using the desktop version of the program from your computer by visiting www.MyDesignsapp.com.




STEPS:

1. Download on an Apple device or visit mydesignsapp.com.
2. Sign in or select create an account
3. Create a new design
4. Select a building type to get started with your design!

Uniquely you...
by design!





Bright Ideas on Sun Protection

It can be overwhelming to evaluate sunscreen for adults and children. This article will help address common questions such as, “Is this sunscreen waterproof?” and “What does SPF really mean?” The details for this information come directly from the Food and Drug Administration’s website, www.fda.gov, which offers a great deal of resources to help families and individuals understand the dangers of sun exposure and gives recommendations on the proper products and care to ensure your time in the sun is pleasant and enjoyable.

General Shale wants to remind all our readers to remember sun protection well after summer, so here are some key tips!

A Word on Sunscreens

As an FDA-regulated product, sunscreens must pass certain tests before they are sold, but how you use this product, and what other protective measures you take, can impact how well you and your family are protected from sunburn, skin cancer, early aging, and other risks of overexposure to the sun. Some key sun safety tips include:

- Limit time in the sun, especially between the hours of 10 a.m. and 2 p.m., when the sun’s rays are most intense.
- Wear clothing to cover skin exposed to the sun, such as long-sleeved shirts, pants, sunglasses, and broad-brimmed hats.

- Use broad-spectrum sunscreens with SPF values of 15 or higher regularly and as directed.
- Reapply sunscreen at least every two hours, and more often if you’re sweating or are in and out of the water.

How to apply and store sunscreen

- Apply 30 minutes before you go outside. This allows the sunscreen (of SPF 15 or higher) enough time to provide the maximum benefit.
- Use enough to cover your entire face and body (avoiding the eyes and mouth). An average-sized adult or child needs at least one ounce of sunscreen (about the amount it takes to fill a shot glass) to evenly cover the body from head to toe.

It’s also very important to be aware of your own complexion and sensitivity to sun exposure. Fair-skinned people are likely to absorb more solar energy than those with darker or olive-toned complexions under the same conditions.

NO SUNSCREEN IS ACTUALLY WATERPROOF

People should also be aware that no sunscreens are waterproof. All sunscreens eventually wash off. Sunscreens labeled “water resistant” are required to be tested according to the required SPF test procedure. The labels are required to state whether the sunscreen remains effective for 40 minutes or 80 minutes when swimming or sweating, and all sunscreens must provide directions on when to reapply.

Sunscreens for infants and children

Sunscreens are not recommended for infants. The FDA recommends that infants be kept out of the sun between the hours of 10 a.m. and 2 p.m., and to use protective clothing if they have to be in the sun. Infants are at greater risk than adults of sunscreen side effects, such as a rash. The best protection for infants is to keep them out of the sun entirely, as they are less able to regulate their own body temperature in hot and exposed environments. Ask a doctor before applying sunscreen to children under six months of age. It is also important to note that younger

Frequently forgotten spots:

- » Ears
- » Tops of feet
- » Nose
- » Along the hairline
- » Lips
- » Areas of the head exposed by balding or thinning hair
- » Back of neck
- » Hands



children should usually use a stronger SPF of 30 or higher when spending extended periods of time outdoors in the summer. You should also ensure that you are using a broad-spectrum sunscreen for children to get the best protection. There has been a trend in children's sunscreens toward easy-to-apply spray products. These should usually be avoided if possible. It is difficult to know how well the child is being covered by spray sunscreens, and many organizations believe more research is still needed on possible side effects from inhalation.

Broad spectrum

Since sunscreens are not all created equal, it is important to read labels carefully to get the best protection. Broad-spectrum sunscreen provides protection from the sun's ultraviolet (UV) radiation. There are two types of UV radiation that you need to protect yourself from—UVA and UVB. Broad-spectrum sunscreen provides protection against both by providing a chemical barrier that absorbs or reflects UV radiation before it can damage the skin.

Sunscreens that are not broad-spectrum or that lack an SPF of at least 15 must carry the warning:

“Skin Cancer/Skin Aging Alert: Spending time in the sun increases your risk of skin cancer and early skin aging. This product has been shown only to help prevent sunburn, not skin cancer or early skin aging.”

Sun protection factor (SPF)

Sunscreens are made in a wide range of SPFs. The SPF value indicates the level of sunburn protection provided by the sunscreen. All sunscreens are tested to measure the amount of UV radiation exposure it takes to cause sunburn when using a sunscreen compared with how much UV exposure it takes to cause a sunburn when no sunscreen is used. The product is then labeled with the appropriate SPF value. Higher SPF values (up to 50) provide greater sunburn protection. Because SPF values are determined from a test that measures protection against sunburn caused by UVB radiation, SPF values indicate only a sunscreen's UVB protection. This is important to note, since sunscreens with high SPF values may not provide any relevant protection from UVA radiation—which has been recognized as a

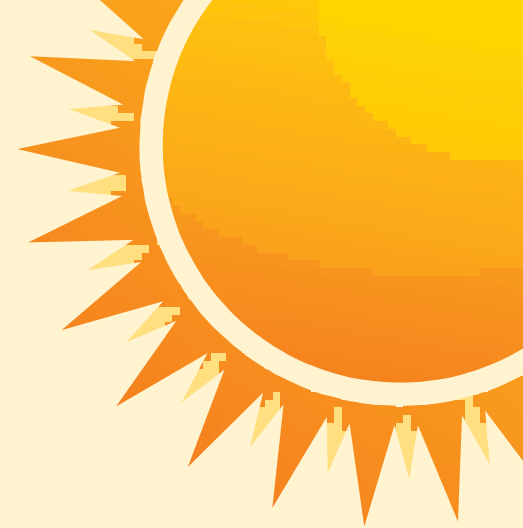
leading cause of skin cancer and early aging. As of June 2011, sunscreens that pass the broad-spectrum test have demonstrated that they also provide UVA protection. Therefore, under the label requirements for sunscreens labeled “Broad Spectrum SPF [value],” these labels will indicate protection from both UVA and UVB radiation.

To get the most protection out of sunscreen, choose one with an SPF of at least 15. If your skin is fair—or if you're choosing a sunscreen for children, you may want a higher SPF of 30 to 50.

There is a popular misconception that SPF relates to time of solar exposure. For example, many people believe that, if they normally get sunburned in one hour, then an SPF 15 sunscreen allows them to stay in the sun for 15 hours (e.g., 15 times longer) without getting a sunburn. This is not true, because SPF is not directly related to time of solar exposure but to amount of solar exposure. The sun is stronger in the middle of the day compared with early morning and early evening hours. That means your risk of sunburn is higher at midday. Solar intensity is also related to geographic location, with greater solar intensity occurring at lower latitudes (closer to the Earth's equator).

Sunscreen expiration dates

FDA regulations require all sunscreens and other nonprescription drugs to have an expiration date unless stability testing conducted by the manufacturer has shown that the product will remain stable for at least three years. That means that a sunscreen product that doesn't have an expiration date should be considered expired three years after purchase. To make sure that your sunscreen is providing the sun protection promised in its labeling, the FDA recommends that you do not use sunscreen products that have passed their expiration date (if there is one) or were not purchased within the past three years (if no expiration date is provided). Expired sunscreens should be discarded since there is no assurance that they remain safe or fully effective. So, be sure to properly prepare and protect yourselves and your loved ones as you plan your Labor Day fun. Because few things will stop the laughs quicker than a bad sunburn or overexposure!



SO BE SURE TO PROPERLY PREPARE AND PROTECT YOURSELVES AND YOUR LOVED ONES AS YOU PLAN YOUR LABOR DAY FUN. BECAUSE FEW THINGS WILL STOP THE LAUGHS QUICKER THAN A BAD SUNBURN OR OVEREXPOSURE!



IT'S A DOG'S LIFE!

Dan Green's dog, Willow, decided the first-quarter newsletter worked better as a chew toy than reading material! It looks like she enjoyed it!



SINCE WE ARE CELEBRATING OUR **90TH YEAR** IN 2018,
HERE ARE SOME FUN FACTS FROM

BACK IN 1928

THE YEAR GENERAL SHALE BRICK WAS FOUNDED

AMELIA EARHART
BECAME THE FIRST
WOMAN TO FLY ACROSS
THE ATLANTIC AS A
PASSENGER.



SLICED BREAD SOLD
FOR THE FIRST TIME BY
THE CHILlicothe
BAKING COMPANY.

