GRASSES showcased a wide range of material products derived from the Gramineae family of flowering plants. Grasses are defined by their hollow stems which join at alternating, sheathing leaves, and flowers arranged in spikelets. Of more than 12,000 known species, common examples of grasses grown in high volumes around the world include bamboo, corn, rice, sorghum, and wheat. Although grasses for human use are most prevalent in the food supply chain, providing just over half of global dietary energy, they are also viable resources for products in many other industries, including buildings and infrastructure. Grasses are also considered rapidly renewable crops, meaning they grow in a cycle of less than 10 years, an important factor for the environmental-friendliness of grass-based products.

**BAMBOO | STEM | ACOUSTIC PANEL**

PlybooSound | Smith & Fong | 03-062500
Laminated bamboo boards, joined with ultra-low emitting adhesives (ULEF) are used in the assembly process, making this a product that is free of urea-formaldehyde. The composite is then mechanically manipulated to create unique acoustic panels that reduce ambient noise in a space.

**BAMBOO | STEM | BAMBOO MESH**

Nativebamboo | GKD | 08-108200
This composite mesh product is composed of stainless steel rods, woven with bamboo stem inserts. Nativebamboo comes in multiple sizes and thicknesses and is appropriate for indoor or outdoor applications, and can be hung for vertical or horizontal installations.

**BAMBOO | STEM | COMPOSITE PANEL**

Conbou Panel | Conbou | 03-061200
Conbou panels benefit from bamboo's structural efficiency by deploying bamboo stems in a truss-like geometry between two plates to create a strong, lightweight sandwich which can be used in a variety of applications such as wall assemblies and furniture.

**BAMBOO | STEM | COMPOSITE PANEL**

Stratum | Richlite | 04-068000
This laminated surface material embeds a layer of bamboo between contrasting layers of paper composite. The bamboo core contributes to the product's light weight, which provides a renewable, durable solution for tabletops, cabinets and other furniture applications.

**BAMBOO | STEM | DECKING**

BamDeck 3G Composite Decking | Cali Bamboo | 04-067313
BamDeck 3G is a waterproof deckng product composed of 100% recycled materials, including 60% bamboo fibers and 40% high-density plastics. The planks are sealed on all sides, providing protection from moisture, staining, termites, fading, and scratches.

**BAMBOO | STEM | ENGINEERED BAMBOO**

Lamboo Structure | Lamboo Technologies | 03-061813
Lamboo's Structure products are made of laminated, engineered bamboo that can be used in heavy timber construction as well as glulam applications. The product is treated with environmentally safe, exterior preservatives to help prevent decay and rot.

**BAMBOO | STEM | EXTERIOR SURFACING**

Lamboo Elements | Lamboo Technologies | 03-062000
Lamboo's Elements series can be used in exterior applications such as cladding, decking, and other structures. The material has high dimensional stability, is pressure treated in order to prevent rot and exterior decay, is Class A fire rated, and uses and maximizes the yield of bamboo due to its low amount of defects.

**BAMBOO | STEM | EXTERIOR SURFACING**

Lamboo Rainscreen | Lamboo Technologies | 05-074623
Lamboo's Rainscreen products allow laminated bamboo to be integrated into wall cladding, siding, soffits, etc., and are treated with environmentally safe, exterior preservatives to help prevent decay and rot.

**BAMBOO | STEM | FLOORING**

PureForm Flooring | Teragren | 06-096223
This vertically laminated bamboo flooring offers a rapidly-renewable alternative for hardwood floors and wall panels. This product is dent-resistant and claimed to be harder than old growth wood. Its durability is enhanced by UV polyurethane and aluminum oxide finishes.

**BAMBOO | STEM | RAW MATERIAL (TREATED)**

Tre Gai Bamboo | Safari Thatch | 03-064000
Tre-Gai bamboo (Bambusa stenostachya) is a large bamboo species and one of the strongest bamboo types for structural applications due to its thick stem sidewalls. Displaying the typical tan color of this grass, its surface is scarred with pronounced nodes and a slight taper.

**BAMBOO | STEM | RUG**

La Carice by Kvadrat | Danskina | 10-124800
La Carice is a thick, tufted rug composed of 50% frisé wool and 50% bamboo viscose. The combination of these two materials gives the product a high pile and unique lustre.

**BAMBOO | STEM | RUG**

Bambusa by Kvadrat | Danskina | 10-124800
Bambusa is a rug composed of bamboo silk fibers, which is a type of natural viscose. To produce bamboo silk fiber, cellulose is extracted from bamboo, formed into a sticky paste, and then left to dry. Once dried, it is expelled to become a silky fiber.

**BAMBOO | STEM | TEXTILE**

Spun Bamboo EcoThreadz | Bamboo Clothes | 09-120513
These t-shirts are made from 100% bamboo fibers which are broken down chemically and then recomposed into viscose. The result is a soft, breathable textile suitable for apparel.

Looking for more materials? Visit us at soa.utexas.edu/resources/matlab
**BAMBOO | STEM | TEXTILE**
Xotic Bamboo Felt | National Nonwovens | 09-120513
This felt, made with a 50/50 bamboo-rayon blend, uses sustainably-sourced bamboo in place of more traditional fibers to create a soft, durable fabric.

**BAMBOO | STEM | WALL COVERING**
Bamboo | Maya Romanoff | 08-097223
Handmade bamboo wallpaper that is hand-painted, inlaid, and finished by craftsmen in Chicago. These wallpapers are Class A fire rated, durable, graded for color flow and seam well, and are easily cleaned.

**BAMBOO | STEM | WINDOW SHADE/WALL COVERING**
Bamboo Silk | Windochine | 10-122400
This hand-woven, open weave bamboo scrim is sheer, ultra-thin, and made of grasses native to Southeast Asia and China, including bamboo, buntal palm, abaca, raffia, baccab fiber, jute, and pineapple fiber. The textile is produced by craftsmen according to traditional techniques, and applications range from window treatments to screening devices.

**BAMBOO, REED | STEM | WINDOW SHADE**
Reed Roman Fold Shade | Conrad | 10-122440
This handwoven window shade is made of bamboo poles interwoven with natural reeds and fibers from Asia. The product is mold and bacteria resistant, VOC-free, toxin-free, durable against light and heat exposure, and requires little maintenance. As the shade ages, the product develops a patina.

**CORN | HUSK | RAW MATERIAL**
Cornsilk Powder | Monterey Bay Spice Company | 04-068000
Cornsilk powder is produced from the silky threads found under the husks of fresh corn, which are then dried and ground. The powder can be infused with oils and applied topically, used in tea blends, added to cooked foods, or consumed as a dietary supplement.

**CORN | KERNEL | TEXTILE**
Organic Corn Fabric | ZS Fabrics | 09-120513
This bio-based textile is made from corn fiber and naturally occurring plant sugars. The natural characteristics of corn lend the textile fire-resistance, moisture-resistance and low odor retention. Additionally, the textile is hypoallergenic and wrinkle-resistant.

**CORN, RICE, WHEAT | STEM | FIBERBOARD**
BioFlexi | BioMAT | 03-062600
Bioflexi is a highly flexible, high-density fiberboard made of 80-90% byproducts from annually renewable crops such as corn, rice, and wheat. The silicate content naturally present in rice straw gives it fire-retardant characteristics. It can be recycled or composted at the end of its life.

**MEADOWGRASS | STEM | FLOORING**
Terrace Flooring | Biowert | 04-067300
Biowert terrace flooring is a bio-composite made from 25% recycled plastics and 75% meadow grass fiber. This product is recyclable, durable, and resistant to scuffing, swelling, and shrinkage.

**MEADOWGRASS | STEM | THERMOPLASTIC PELLETS**
AgriPlast | Biowert | 04-068000
AgriPlast® is composed of 25% recycled plastics and 75% meadow grass. The manufacturing process exposes silage to warm water until only pure cellulose remains. These natural fibers are combined with thermoplastics for added stability, and the pellets seen here are used in the injection moulding and extrusion manufacturing of final products.

**REED | STEM | FENCING**
Reed Fencing | Safari Thatch | 10-323129
This screen is composed of young bamboo river reeds and bound with UV-resistant monofilament clear plastic. This product is commonly used as a screen or a decorative treatment for walls and ceilings.

**RICE | GRAIN | EDIBLE RICE PAPER**
Banh Trang Spring Roll Rice Paper | Three Ladies Brand | 10-120515
This non-GMO, gluten-free rice paper is most used in the making of spring rolls. The product is a combination of rice flour, tapioca flour, filtered water, and salt.

**RICE | HUSK | BOARD**
Pladec Bio Rice Bush | Pladec | 03-068300
This board material is derived from rice husks, which are often discarded or underutilized byproducts of processing rice for consumption. The composite boards are available in modular shapes or larger panels, and are appropriate for interior applications.

**RICE | HUSK | BOARD**
Rice Husk Board | Kokoboard | 03-062000
Rice husk board is made from agricultural waste from rice cultivation, and reduces CO2 emissions by utilizing a resource that would otherwise be disposed of through open field burning. The raw material is mixed with a binding agent, then pressed into panels. It is flame retardant, moisture and termite-resistant, and formaldehyde-free.

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facilities, which diverts waste from landfills and improves vital

The products are compostable in commercial compost

with Ingeo™, a plant-based bioplastic, to improve durability.

Though resistant to moisture and grease, they can also be lined

into the paste, applied to a rigid form, and dried to create a

hardened shell.

Adobe bricks are unfired masonry units made of earth mixed

with straw and sun-dried. The earth includes both organic and

inorganic material. Other additives can be used to improve the

qualities of the material, including stabilizers such as cement or lime, animal hair or plant extracts. This brick was handmade in Coahuila, Mexico.

Adobe Brick Block | Jose Lee Chibli | 01-042400

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with straw and sun-dried. The earth includes both organic and

inorganic material. Other additives can be used to improve the

qualities of the material, including stabilizers such as cement or lime, animal hair or plant extracts. This brick was handmade in Coahuila, Mexico.

Decking by REsysta is made from 60% rice husk, an agricultural

byproduct, combined with 22% salt and 18% mineral oil. It is

recyclable, and resistant to water, termites, mold, and UV

exposure. It can be modified easily during installation and

maintained with minimum effort.

Rice husks are a byproduct of processing rice grains for

consumption. The edible portion of the rice plant is contained

within a husk, or hull, which is often either discarded or used

inefficiently. Many of the rice products in this collection were

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