

by Daniel Jackson, Content Editor, Milling and Grain

lour is used in every household and has been throughout human history. Since it is so ubiquitous, careful consideration must be given to its packaging. Flour is generally packaged in stand-up pouches which are made by laminating several layers of plastic together, creating a barrier against external factors such as sunlight, air and moisture. Because of these qualities, it is also known as barrier packaging. Recently there has been a focus on making it more sustainable.

As more consumers are taking environmental considerations into account when making their buying decisions, companies are increasingly making sustainable and recyclable flour bags. Standup pouches are more environmentally friendly because they take up very little space in landfill.

When empty, each bag is no bigger than an 8x10 shipping envelope and is also recyclable. They are also cheaper than other flour packaging solutions and help manufacturers save money on inventory costs because they occupy much less space than other packaging solutions.

An initiative by a company called TerraCycle aims to make LDPE plastic bags for packaging of flour more common. Any

LDPE plastic bread bag can be sent back to the company to be recycled. Packaging will be shredded and converted into plastic pellets or flakes, before being used to make new recycled products such as public benches and outdoor furniture. It is excellent at keeping the product fresh and, after its use, can be recycled safely.

Cellulose-based films are another environmentally friendly option for packaging flour products. These types of pouches decompose in three months in industrial composting settings. That's because unlike corn and starch-based compostable bags, the wood pulp mitigates any potential negative impact on existing food supplies.

Other plant-based sustainable packaging materials include polylactic acid; these packages are able to decompose in fourteen weeks in a hot and active compost pile. PLA packs are commonly used for packaging finished products for consumers.

The way flour is packed also depends on its quantity – for small amounts there is no consideration given to the robustness of the package. However, with a larger quantity, the packet should be strong enough to be transported securely.

This makes the whole process of environmentally friendly packaging difficult. Barrier packaging is preferred for easily perishable food products, and since flour can quickly spoil when



exposed to the slightest amount of moisture, it can be used to keep it safe.

This sustainable food packaging option is engineered with multiple layers of barrier film. The barrier film protects against moisture, vapour, odours, and even UV rays. It helps the pouches stand up straight on shop shelves and has a certain level of stiffness. This feature allows flexible retail packaging and stand-up pouches to be landfill friendly as well as recyclable.

Some of the companies involved in making cakes have been recycling their unlined paper shipping sacks together with Old Corrugated Containers (OCC). After many years of sending OCC and bags to different recycling streams, they pioneered a new system, a more efficient process in which used unlined paper shipping sacks were able to be placed in the same compactor as flattened corrugated boxes, just one of several recent innovative solutions in sustainable packaging.

One alternative to flexible packaging is board packaging. It is highly convenient as the tray can collapse after use, which is suitable for disposal, and it reduces the flexible packaging around the box. Recyclable flexible packaging is already popular

in the packaging industry. It is dependable and its carbon footprint is negligible after decomposition.

Sustainable packaging has become essential, with demand and waste increasing exponentially. Everyone uses these products and so the responsibility of keeping the environment clean by keeping the packaging recyclable and sustainable belongs to all of us. Consumers have to be aware of the products they are purchasing, and industry has to package products responsibly.