A Look At Bird Seed

Find out the components of bird seed

By Rebecca Sweat

Seeds add both nutritional enrichment and variety to your bird's diet.
Courtesy Megan Hughes, Florida

When you think “bird food,” what comes to mind? Probably seeds. Birds love it, and it’s been a staple food for our pet birds for as long as we’ve been bringing them into our homes. There’s just something about cracking open a seed and digging out that tasty nugget inside that birds love.

True, many pet owners now feed their birds a formulated pellet as their base diet. Even then, many people supplement that diet with some seeds.

“Pellets have all the nutrients we know that a bird requires and that’s a great way to go, but there’s nothing wrong with providing some seeds for a fun treat or for a small amount of the diet for some species,” said veterinarian and BIRD TALK columnist Margaret Wissman, DVM, DABVP, Avian Practice.

Seeds add both nutritional enrichment and variety to a bird’s diet. “Seeds have a lot of textures and shapes that a pellet doesn’t have,” Wissman said. “Seeds offer an opportunity for birds to spend time and energy foraging for food. They have to use their beaks and tongues to extract what’s inside the seed, and sometimes they’ll hold the seeds with their feet.” In the process, birds develop beak and foot dexterity.

But what exactly is in that seed mix we’re feeding to our pet birds? What are the main components of a seed? What kind of nutrition do seeds offer?

Seed components
A seed is a plant structure capable of producing a new plant. It consists of four parts: embryo, cotyledon, endosperm and hull (or seed coat). Each plays a specific part in taking the seed from a dormant (but still living) state to an active, growing state.

The embryo (or germ) turns into the seedling. It will begin to grow when conditions are favorable — in other words, when it receives the right amount of moisture and warmth.

Seed leaves (or cotyledons) encase the embryo. Cotyledons are generally the first parts visible when a seed begins to germinate. These leaves are usually shaped differently than the leaves of the mature plant. If the seed is a monocot, it will have one cotyledon. Dicots produce two cotyledons.

The endosperm is the seed’s built-in food supply. It contains oil, starch and protein — all the nutrients necessary to grow the embryo.

The hull — the hard outer covering on a seed — protects the embryo and endosperm from disease and insects while preventing it from drying out. It also prevents water from entering the seed and initiating the germination process too early. Seed coats vary in thickness, with some being paper-thin (as with peanuts) or thick and hard (as with honey locusts and coconuts). In order for a seed to germinate, the embryo soaks up water and swells, which splits the seed coat apart.

Pet birds typically eat ungerminated seeds, which haven’t started growing but ideally are still alive and haven’t dried completely. Once a seed is hulled, the remaining embryo, cotyledon and endosperm are called the kernel or nutmeat. This is what our pets eat.