Coir is a by-product of coconut harvesting. For centuries, rope, twine, and mats have been made from the fiber in the husk of coconuts. These fibers are obtained by husking or breaking up the hard shell, then soaking it in water-filled pits to soften the fibers.

These fibers make up about one third of the husks with the remaining two thirds consisting of pith or dust which previously was discarded as waste. It was not until the 1980’s that horticulturists began studying Coconut Coir dust as a substitute for sphagnum peat moss.

About 60% of the world’s Coir fiber is produced in the state of Kerala on the western coast of India. Sri Lanka and India together produce 90% of the annual coir production worldwide.

Many times coconut husks are processed in water-filled pits of sea water, it is important to make sure Coconut Coir is washed and free of any salt.

The Coir in this package has already been screened, washed and graded as a premium horticultural product.

**Coir as a growing medium**

Coir contains no nutrients, unlike your backyard garden compost which contains fungi and bacteria. Vermicompost is loaded with these nutrients. The Worm Factory® can easily convert Coir into a superior growing medium.

Compost and Coir have many of the same characteristics, such as a spongy texture, expanding air space, and high moisture holding capability.

Backyard/garden compost breaks down rapidly in the soil and must be re-applied annually. Coconut Coir, on the other hand, will last in soil for years.

Coir has a high lignin content. Lignin is an organic substance that, along with cellulose, forms a chief part of woody tissue. It is the lignin that resists rapid breakdown in the soil, and is the source of Coir’s longevity. After adding Coir to soil it has an estimated lifespan of 5 to 10 years before it begins to break down. Coir out performs peat moss, rockwool, vermiculite, and perlite as a soil amendment.

Most commercial bagged potting mixes contain chemical wetting agents. Coir is a 100% organic wetting agent. Its ability to rehydrate repeatedly as soil moves from wet to dry with little loss in yield is remarkable. In addition, wet Coir holds around 1000 times more air than soil, making Coir the superior choice for creating potting mixes.

With its high water-holding capacity, Coir provides plant roots with excellent drainage. Coir’s high air to water ratio is extremely valuable for healthy root development. Coir is an excellent high quality, general purpose soil amendment, perfect for potted plants and gardens. Coir has the ability to store and release nutrients to plant roots for extended periods of time. With better nutrient absorption, coir fosters excellent growth and plant formation.

**FEATURES:**

- **High water holding capacity**
  Up to 7 times its weight

- **Retains and releases nutrients**
  Over an extended period of time

- **Naturally weed free**
  Absence of weeds, seeds and pathogens

- **Disease resistant**
  Significant reduction of root diseases

- **Spongy texture**
  Similar to traditional compost

- **Excellent air space & drainage**
  Similar to traditional compost

- **Develops elaborate root systems**
  Unmatched medium for seed starting

- **Neutral to slightly acidic pH**
  Unlike peat moss which has a high acidity

- **Soil amendment & conditioner**
  Excellent in both clay or sandy soils
Sandy soil is by far the largest of the three and can be seen with the naked eye. Soil sand however must be small enough to hold some water, unlike gravel for paths. Even so, most of the water will readily drain out along with nutrients, leaving lots of air space.

Silt soil is much smaller than sand - will need a microscope to see individual particles. Silt soil holds more water and has the appearance of flour, yet still contains air spaces.

Clay soil on the other hand is much, much smaller. In fact you will need an electron microscope to see a single clay particle. Clay holds lots of water, is slippery when wet, rock hard when dry and has little air space between the particles.

In the book *Teaming With Microbes* the following illustration is given. "If a clay particle was the size of a marigold seed, a silt particle would be the size of large radish, a sand particle would be the size of a large garden wheelbarrow."

Of the three soil types, clay is by far the best soil for gardening, containing large amounts of minerals which plants need. However, many gardeners will disagree because the clay is difficult to cultivate and is so compacted that it provides little air to plant roots.

When mixed with clay soil, Coir breaks up the clay particles, adds air space and loosens the soil making it easy to till. It also adds porosity to the mix similar to garden compost. However, coir stays in the soil mix for many years, unlike garden compost which breaks down quickly.

Coir also improves sandy soil by adding texture, water retention, and nutrient storage and retention.

Gardeners report amazing results converting their home soil into useful medium for soil mixes and container plant growing. These characteristics make Coir an ideal soil amendment.

**Coir as a seed starting mix**

For many gardeners starting seeds is a challenge prone to failure.

Garden writers suggest two important things to consider:

1. A disease free growing medium.
2. A medium that retains moisture but avoids becoming wet or soggy.

Garden soil is never recommended for seed starting for many reasons. Many advise making a soil mix using peat moss or sphagnum, a wetting agent and limestone to correct the pH of peat. Coir however, is free of weed seeds, diseases, and pathogens. Coir is easy to wet, holds seven times its weight in water, cannot be compacted, fosters root development and does not waterlog.

Coir replaces all other recommended soil amendments for creating your own seed starting soil, including peat moss, rockwool, vermiculite, perlite and wetting agents like polymers. There is also no need to place the starts in a pan of water in an attempt to manage moisture as some recommend. Since coir retains moisture so well.

Remember seeds don’t require fertilizer for germination, begin to add fertilizer once the plant’s leaves have developed.

**Starting seeds**

Use moist Coir. Add moisture using a fine spray as the top surface dries out. Make sure there is sufficient light.

Once your seeds have reached 3” or 4” in height and have true leaves, it is time to transplant into a container which has fertilizer or add fertilizer to the container your plants are in.

**Transplants**

When transplanting any size plant adding Coir is recommended below the plant. Example: fill the bottom 1/3 of your container with Coir, and fill the rest of the area around the plant with potting soil. Coir builds strong root structures and will insure your transplanted plant will adapt its roots into the new location.

**Worm composters**

Adding a handful or two of Coir to each new tray will speed up the compost process and produce a much higher quality of finished worm compost for your garden.

Coir in not an essential ingredient to operate a worm composter, however, if available, it is highly beneficial.

**Available Sizes**

For More Info:  www.MoringaTreeOfLife.com; victoria@moringatreeoflife.com; ph. (520)325-3400  (Tucson, AZ, USA)