CAMP KAWARTHA ENVIRONMENT CENTRE FACT SHEET SERIES

GREEN WALLS

There are several different ways to create well insulated walls out of natural biodegradable materials

Slipstraw

Straw is tossed evenly in "slip", a thin mixture of clay and water, then tightly packed into temporary forms to create walls. Not all the seeds are removed from the straw before it gets bailed so seeds start sprouting from the walls days later. The slipstraw is dry inside by the time the sprouts die (about 3 weeks time). Finally it is covered with lime plaster.

Hempcrete

A mixture of hemp, lime and water is layered into wood framed walls. Hemp is a fast-growing plant that requires little to no pesticides. Mixed with lime and water it becomes as hard as concrete, but offers excellent insulation and breathability.

Rammed Earth

A mix of gravel sand and clay is poured into a chamber and the block is made in one compression with a hydraulic press. They are coloured with natural pain made of skim milk, lime, and dye.

Pre-Fabricated Walls

Built with straw bales and plaster (lime cement masonry mix, sand and water) in form boxes.

Denim Insulation

Denim insulation comes from factory cut off that would otherwise be garbage. Cotton is renewable, non-toxic and bio-degradable.

Strawbale Construction

Strawbale construction uses baled straw from wheat, oats, barley, rye, hemp and other grains in walls covered with plaster. Straw, as opposed to hay, is the dry plant material or stalk left in the field after a plant has matured, been harvested for seed, and is no long alive. It is often considered an "agricultural waste product." Enough straw is already grown in Ontario each year to build all our new homes with this material.

Two types of bale wall systems are commonly built:

- In an in fill building a wood, steel or concrete framework is erected and bales are placed n the walls as structural insulation.
- Plastered bale walls can also bear the weight of the roof, as evidence by the historical Nebraska homes and the Camp Kawartha Environment Centre.

Environmental Advantages

- Bales and plaster are non-toxic and non-offgassing for healthier indoor air quality
- Wall system is excellent at handling indoor moisture issues without creating condensation and mold issues
- Minimizes use of tress compared to typical "stick-frame" construction
- Straw is a renewable source

THE CAMP KAWARTHA
Environment Centre

Camp Kawartha
& The Kawartha Outdoor Education Centre