"fine people making fine furniture"
– since 1978 –

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Ron Loe
President

Upbeats in the downturn

Sunlight peeking through the clouds

As we write these words, one of the most severe economic downturns in decades looms over us still, like a dark cloud that won't move. Even as the weather has warmed, we continue to shiver in the cold shadows of this, the "Great Recession."

Yet there is ample good news, from my perspective at least. Existing home sales are on the increase, which may indicate that the broader housing market is starting to improve. The stock market is rebounding from its February lows, hinting investor confidence is returning. These two indicators — housing and stocks — historically lead a recovery from a recession.

Other hopeful signs of a better economy coming our way:

- Easing commodity prices. Wheat, corn, and copper prices were blasting through the stratosphere last summer. Speculative investing explained some of the run-up, but strong economic growth in India, China and other emerging nations accounted for huge commodity demands. The recession has dampened worldwide commodity hunger, pushing prices down to more historically normal ranges.
- Lower "Big Energy" prices. Oil and natural gas inventories and reserves are now at historic highs with world demand remaining soft. Nuclear energy may soon see renewed respect and consideration, as environmental worries make fossil fuels increasingly less desirable and alternative sources (see "Little Energy" below) supplementary at best.
- Improved "Little Energy" sources. The debate rages over the economics and efficiencies of alternative sources of energy, such as tidal, solar and wind. Few, however, disagree that advancement in these technologies will only enhance our menu of local and regional options for supplementary power.
- Circumspect financial markets. The starched shirts of Big Banks just got a lot more starch. The Obama administration's regulatory zeal, for the short term at least, should minimize exotic and over-leveraged financial ventures. Prudence will replace unbridled zeal.

Of course, all this optimism comes with the sober recognition that our 21st Century world is largely unstable and unpredictable, what with techno-savvy emerging economies colliding with ancient cultures and beliefs. Terrorism is the violence du jour. On the home front, the old models for caring for our sick and elderly are broken and we struggle for affordable, equitable solutions.

Despite all the negatives, I still foresee a brightening future. The American can-do attitude is hard to vanquish. Our ingenuity will continue to lead the way in developing new technologies, including green energy options. At Wood Castle, I'm confident that our core personnel are well poised to meet upcoming demand. We're ready to grow again as the dark clouds of this recession give way to a hopeful and warm summer and fall.

Here's to

BLACK CHERRY

An All-American Favorite

American lore portrays our first president as an honest boy, courageous enough to "not tell a lie" after chopping down his father's favorite cherry tree sapling. True story or not about his honesty or the tree, our first president never hid his enjoyment of Cherry Bounce, a popular liqueur of the time, a colonial concoction made then by fermenting wild black cherries with cognac, brandy or whiskey along with other ingredients.

Today, Cherry Bounce can still be ordered at some watering holes, but other than in this cocktail, jams and jellies, and cough remedies, wild black cherries play only a minor role of importance in American commerce. Far more significant is the parent of this fruit, Prunus serotina, the American black cherry tree.

Long used worldwide by fine furniture makers, including Wood Castle, black cherry is known for its fine grain, satiny luster, and ease of use and machining. But owners of cherry furniture admire it for its color-aging, a light-dependent natural process that results in a rich burgundy-cinnamon hue. Few natural woods are as beautiful.

Many varieties of cherry grow in most regions of the U.S., in mixed natural forests, orchards and ornamental landscapes. But black cherry natively grows primarily east of the Mississippi, and prominently in the so-called Appalachian Plateau area, which includes Pennsylvania, New York and West Virginia. In open areas, black cherry trees can tower up to 80 feet and higher, with trunks as thick as four feet.

Like apples, pears, peaches and other fruits, black cherry is part of the rose family. Its wood is the only fruit wood that's commercially significant (others support, at best, only hobby and fine-art woodworking). Black cherry thrives best where soils are moist (though never flooded) and, in the Appalachian region, at altitudes between 1,000 and 2,600 feet. Germination is prolific from fruit drop, but only those seedlings open to good sunlight mature and flourish. The tree cannot tolerate wildfire.

Black cherry supply is somewhat cyclical. It is not successfully plantation-grown in commercial quantities. As woodlands are depleted of stock, seedlings proliferate. The turn time between harvests in an area can be 60 to 80 years. A large amount of cherry lumber came on the market just after World War II. Some speculate the reason for the spike goes back to the Civil War, when death or injury prevented some soldiers, from returning to their farms. Fallow fields fostered a surge in cherry trees safe from the farmer's axe or plow. Add 80 years and a lot of cherry lumber is ready for sale.

The fruit of the black cherry is virtually black when ripe and typically no more than ½-inch in diameter. Its taste has been described as both bitter and sweet, and, while edible raw, it is most often harvested for use for flavorings and extracts.

The bark of the black cherry tree historically was used in making herbal remedies for dry throat and cough. Smith Brothers, Ludens and other brands trace their beginnings to these potions.

Found in the leaves of the black cherry tree is a cyanide-containing molecule called prunasin. A potent poison, the cyanide is released from the sugar molecule when the leaves suffer stressful events, such as drought, frost or insect infestation. Not long ago, tent caterpillars, which defoliate black cherry trees, were implicated in a sudden and tragic loss of foals at a thoroughbred racing horse farm in Kentucky. Apparently, the caterpillars' droppings tainted the pasture grass grazed by the mares. The cyanide on the grass did not seem to affect the mares, but it was sufficiently high to cause them to abort their foals.

How many homeowners know their Wood Castle cherry furniture has such a rich heritage?. We propose a toast. Pass the Cherry Bounce.

Wood Castle Contest: How much dirt?

Welcome back, dear Contest Winner Wannabes. As you may recall, we took a break last issue, so there was no contest. But we're rested up now, so, without wasting any more ink, here's our send-up riddle for this issue:

☞ **How much dirt is there in a hole exactly one foot deep and one foot across?** ☜

(Hint: this is a riddle; the answer is simple.)

In case you don't know the drill, send us YOUR ANSWER, YOUR NAME and YOUR PHONE by fax (541-754-0511), e-mail (info@woodcastle.com), or U.S. post (Wood Castle / "Dirt" Contest, 29855 Highway 34, Albany OR 97321). No entries accepted after September 1, but until that time give us your best shot. More Fine Print:

- Enter just once (no ballot stuffing);
- Except for employees and families of Wood Castle, our contest is open to anyone who reads the Wood Castle Times;
- Wood Castle's Certified Team of Impartial Judges (aka, Jerry and Kim) will conduct an Impartial Random Drawing from all the correct entries received;
- The winner (assuming there is one) will receive a Certificate redeemable for a U.S. $250 credit toward anything Wood Castle manufactures for retail sale (sorry, no cash award is possible); and
- Winner's credit (however much remains) expires December 31, 2009.

DEFORESTATION

Deforestation is a growing concern worldwide. Worrisome are the social and economic impacts resulting from vast losses of native forests. More troubling, perhaps, is the mounting evidence that deforestation can cause devastating environmental damage to both the regional ecology and the world's climate.

It's no surprise, then, that consumers looking to purchase furniture are curious about the source and sustainability of the wood in the furniture they're considering. Globalization can complicate a consumer's ability to research and know what she or he's buying.

Below is a brief review of deforestation – its impacts and consequences.

Deforestation defined Deforestation is loosely defined as the removal, by man or nature, of native forest cover. It occurs planet-wide, but of greatest concern today is the man-caused deforestation in the tropics, especially in Brazil, Africa and Indonesia. When not accidental, this deforestation (or degradation, when partial) is purposeful – logging native species for timber; or clearing for livestock, crops, construction or colonization. In virtually all cases, burning removes the remaining cover.

Downsides For millennia man has harvested timber for fuel, shelter and transportation. Today, the exotic woods of the tropics are coveted for a variety of purposes, not least of which is for furniture.* Yet serious problems have emerged from tropical logging and deforestation.

- **Social** Population increases in some areas, such as Brazil, have forced poor, landless peasants deeper and deeper into rainforests to eke out an existence. Lamentable as this is sociologically and psychologically, with little more than machetes and matches they resort to slash-and-burn deforestation in order to plant crops for subsistence and sale. Aboriginal peoples are also impacted as commercial deforestation – sanctioned or not – reduces their historical territories.

- **Economic** The upside of harvesting valued timber is obvious. Also, converting the forestland for cattle or crops can spur creation of jobs and subsequent economic activity. But in many cases, the economic gain is ill gotten, such as when rogue loggers, without land rights or permission, clear cut vast tracts of forest. And any upside economic benefits must be discounted by the vast areas of denuded land which is so susceptible to erosion and desertification (see below).

- **Ecological** Deforestation or degradation in rainforest zones, whether by nature or man, can cause serious environmental disturbances. Obvious disruptions include loss of habitat and erosion. When deforestation opens up land for farming, the thinly fertile soils are spent after only a few crops. But an even more serious consequence of rainforest deforestation can occur. Desertification, as the term implies, refers to the drop in the rainforest's local precipitation. The reduction in rainfall is said to be due to the loss of normal convective cycles, where forest moisture rises to form clouds, falls as rain to nourish forest plants, and is again released to the air in an endless cycle, day in and day out. Depending on how much biomass is removed in an area during deforestation (often hundreds of acres), the rain cycle can be seriously disturbed. Worse, as desertification grows in scope, it can adversely affect the weather of adjacent, forested areas. Drought can cause wider drought; after a threshold is reached, desertification expands.

- **Climate** It's been said that at least 20% of the net carbon released to the atmosphere can be traced to deforestation of rainforests. The reason: massive amounts of carbon once stored in tropical woody trees and plants are released into the atmosphere when burned. The so-called Kyoto Protocol adopted in 1997 neglected to include this important sector of carbon emissions. On top of desertification, continued and unabated deforestation pumps increasing amounts of carbon into the atmosphere, contributing to the so-called greenhouse gas shield that is so worrisome to many.

U.S. forestlands totalled more than a billion acres when colonists first arrived to these shores. The total is now around 750 million acres (and has remained relatively constant for more than a century).

Deforestation in the tropics has its counterparts in non-tropical (temperate and boreal) areas, but the adverse consequences in these longitudes are typically less significant. In all cases, habitat loss can result in unintended extinctions, but the equatorial zones have far more diversity in jeopardy. Furthermore, non-tropical forest soils and conditions are more conducive to natural regeneration after they are disturbed. Desertification outside the tropics is not common.

The interrelationships between rainforests and earth's thin climate cover are delicate and dynamic. Deforestation and desertification remove the tempering and regulating influences of cloud (moisture) cover, which is key to helping block the sun's warming rays. It has been said that our tropical rainforests are the lungs of our planet. The beauty of the tropics can be breathtaking; the effects of tropical deforestation may be breath-taking. Deforestation affects us all.

Tropical Deforestation

2000-2005
(by share of total)

Brazil 27%	Nigeria 4%
Indonesia 17%	(DR) Congo 3%
Myanmar 4%	Zimbabwe 3%
Zambia 4%	Venezuela 3%
Tanzania 4%	All others 31%

* Virtually all of Wood Castle's collections are crafted from domestically sourced woods, such as black cherry or maple. These woods are harvested from mixed forests that are well regulated and managed for sustainability. Cherry and maple grow in mixed species forests and regenerate successfully on their own from volunteer seedlings.

WOOD & humidity

All wood is wet, even when it's dry. Huh?

When growing, tree wood is very wet due to sap and fully saturated cells. After the tree is cut and dried (or seasoned; by air or kiln), the moisture content drops to within a narrow but variable range. It's still relatively wet. The sap is gone and all that remains is the moisture bound in cells.

"Dry" wood can be wetter. For example, when relatively dry wood (say, an item of wood furniture) is exposed to humid air (when stored, say, in non air-conditioned garage or basement), the wood will gain moisture, "soaking it up" from the relatively wetter air.

The consequences of this variability of moisture in wood can be negligible or significant as the wood fibers shrink or swell depending on the amount of moisture they lose or gain. A drawer or door that opens and closes freely in the dead of winter may be sticky in the summer.

Swelling (or shrinking) varies with the species of wood and its grain characteristics. Longitudinal change — in the direction of the grain — is negligible compared to the change across the grain.* As no tree enjoys perfectly linear grain, moisture changes in lumber may manifest in other ways, including splitting, warping, bowing, twisting and cupping.

Furniture grade hardwood lumber is kiln dried to a stable range of 6-10 percent "equilibrium moisture content." EMC represents the after-drying bound moisture of wood cells for a given relative humidity. Modern home heating and air-conditioning keeps temperatures in the 68-75 degree range, where relative humidity typically falls between 35 and 55 percent. This is perfect for 6-10 percent EMC; very little moisture migrates to or from the finished hardwood furniture and, consequently, little if any shrinkage or swelling occurs. When relative humidity drops below 35 percent or exceeds 55 percent for extended periods hardwood furniture may suffer shrinkage or swelling stresses.

Plywood, among its other advantages, greatly minimizes dimensional variance due to humidity changes. The reason is simple. The thin plies that are glued atop each other to form the plywood board alternate in grain direction. Thus dimensional changes on one ply are effectively negated by a similar change on the adjacent cross ply.

Real wood furniture, well designed and crafted, should easily last a lifetime. That's why Wood Castle can give a Lifetime Warranty against defects in materials and workmanship. Customers can do their part by keeping their furniture "comfy" as possible (see sidebar).

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* It is the across-the-grain movement that most concerns a furniture maker's choice of wood species. Black cherry and Western (Oregon) maple are two of the most stable woods, each exhibiting low dimensional movement as relative humidity varies.

Keeping Wood Furniture Comfy

We humans are sensitive to wide and sudden swings in temperature and humidity. Fine wood furniture is no different. So a good rule of thumb is to keep furniture as comfortable as we'd like to be. Here are some hints:

- **Avoid drafty windows, doors and vents.** Drafts can change relative humidity more quickly than wood can adjust.
- **Avoid direct sunlight.** Harsh sunlight over time can dry out and/or damage surfaces it touches.
- **Maintain comfortable room temperature and humidity.** Sixty-eight to 75 degrees Fahrenheit and 35% to 55% relative humidity are good ranges.
- **Locate furniture away from hot or cold sources.** During winter, furniture that's close to wood stoves, radiators and portable heaters can give up moisture. Similarly, furniture next to chilly, uninsulated windows and walls may take up moisture..
- **Keep chests and dressers closed and full.** Expansion and contraction of wood is slowed significantly when a case's drawers and doors are closed. Similarly, full drawers and spaces help buffer swings in temperature and humidity.

Wood Castle Times is published occasionally for the benefit of our employees, our vendors, our store partners and our community.
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