

LATEST IN THE MARKET



German kitchens from Johnson

Johnson Kitchens recently introduced two new German kitchens. The Black High Gloss Apartment comes with sleek design while the Walnut Black High Gloss design uses wood finishes in glass. Walnut set schemes against white cabinets add a dramatic touch. Johnson Kitchens has also introduced the Profi+ technology drawer systems in its German kitchen range that uses the ArciTech solution promising smooth running action, stability, added storage space and noiseless operation. In a press release, the company informs that all the German and Indian kitchens come with a three-year warranty. Johnson Kitchens is also planning to establish a network of 36 retail stores in South India by March 2013.



Veggie Cutter from TTK

TTK Prestige has come out with what it promises to be a solution for the most time consuming and strenuous chore in the kitchen i.e., cutting and chopping. It has introduced 'Prestige Veggie Cutter' that is equipped to perform like a multi-functional vegetable cutting machine. Built with the unique Swiss technology, the Veggie Cutter is easy to use and cuts vegetables with less or no effort. All one has to do is to simply pull the ring handle to evenly and efficiently chop fruits, vegetables, herbs, nuts and cooked meats. According to a press release, the product operates like a hand-powered food processor and the more one pulls, finer the texture becomes from very coarse to a fine puree. Available across all Prestige Smart Kitchens and dealer/multi branded outlets, it is priced at Rs.1,195.



Printers from Samsung

Samsung Electronics has launched its new range of printers which promise quick printing speeds with enhanced quality at cost effective rates. The new launches cover the entire spectrum with models catering to entry level single function, entry level multi function and mid range multi function segments. The new printers are equipped with Samsung's one-touch Print Screen button, allowing users to print the content of their screen quickly and easily. The entry level multi function printer SCX-3401/XIP is priced at Rs.8,999 and the mid range multi function printers SCX-4021/XIP is priced at Rs.11,499 and SCX-4321NS at Rs.13,499.

STPs from Sintex

Sintex has come out with a range of new products including Package Type Sewage Waste Treatment Systems/Disinfectant Systems (PWTS) that are compact, low-cost and can be set up almost immediately. For these, the company has tied up with Aqua Nishihara Corporation, Japan. According to a press release, Sintex STPs highlight the advantage of smaller decentralised local units for treatment of community waste water/sewage specially in areas where developing urbanisation has to integrate with the environment. The company release lists out advantages of the products as them being 100 per cent eco-friendly, rust and leak proof, light weight and durable. Given a small footprint, they can be installed in colonies, malls, large and small apartments, hospitals, hotels and other commercial establishments.

Grasses with great ornamental value

Certain grasses when abloom throw long stalks with plumes which have great ornamental value, writes **N. CHANDRAMOHAN REDDY**

Some popular ornamental grasses	
<i>Acorus calamus</i>	Sweet Flag
<i>Arundo donax</i>	Reed grass
<i>Carex buchananii</i>	Leather-leaf Sedge
<i>Chlorophytum comosum</i>	Spider plant, Ribbon grass
<i>Cortaderia selloana</i>	Pampas grass
<i>Cyperus papyrus</i>	Papyrus
<i>Cyperus alternifolius (C. involucratus)</i>	Umbrella grass
<i>Dianella tasmanica</i>	Flax Lily
<i>Festuca glauca</i>	Blue Fescue
<i>Isolepis cernua</i>	Fiber-optic grass, Scirpus grass
<i>Ophiopogon jaburan</i>	Ophiopogon grass, Lilyturf
<i>Ophiopogon japonicus</i>	Monkey grass, Mondo grass
<i>Pennisetum species</i>	Fountain grass
<i>Phalaris arundinacea</i>	Ribbon grass, Reed Canary grass
<i>Pogonatherum panicum</i>	Bamboo grass
<i>Saccharum spontaneum</i>	Kans grass
<i>Thysanolaena latifolia</i>	Tiger grass



STURDY: Ornamental grasses have an inherent ability to withstand the extremes of drought and excessive rain and are relatively pest and disease free.

Grass always appears greener on the other side of the fence, probably because we never care to take a proper look at the blades underneath. Cushioning our feet despite being crushed beneath, and humbly submitting to our weight yet springing back to form are so many different kinds of grasses, which we often fail to notice and marvel at. Though grass varieties such as rice, wheat, sorghum, maize, oats, barley and millets give us food, and those such as bamboo are useful economically, there are also certain grasses the purpose of which is solely ornamental. When abloom, they throw long stalks with plumes which have great ornamental value. They bring perennially striking form, colour, texture, motion, and sound to the garden. The term "ornamental grass" refers to true grasses (which belong to the family

Poaceae), as well as other plants that have a grass-like appearance such as sedges (Cyperaceae) and rushes (Juncaceae). Hundreds of species and cultivars of ornamental grasses are thriving in wide range of temperatures throughout the world. **Characteristics** Most of the ornamental grasses are fast growing perennials. Their height varies from a few centimeters up to several meters. They generally have underground rhizomes (a type of stem). The grasses vary in form, size, colour and time of bloom thereby providing a wealth of choices. Leaves are flat and narrow and are held to the slender stems (culms). Colour of foliage includes shades of green, yellow, blue, red, brown, and variegated. Individual flowers are clustered together in a colourful inflorescence.

GREEN MATTERS

Majority of the grasses grow in open areas, exposed to sun. They are known to thrive even in soils low in fertility with conditions less than ideal for other garden plants. Some grow best in moist, well-drained soil while many can adapt to clay, rocky and dry areas. A few will even grow in standing water. **Gardening** With their versatility, ornamental grass is a good alternative for those looking for variety. They can be used as hedge plants, topiaries, ground-covers, specimen

plants, and screens, for water-gardens or rock-gardens, or as container growth. The cut stems with long inflorescences are used in indoor decoration. They can also be used for stabilisation of slopes and to arrest soil erosion. Ornamental grasses add three effects to the garden experience that are not obtained from other plants - movement (foliage and inflorescences flutter with the slightest breeze), sound (rustling noise of leaves) and shimmering light effects (especially when backlit). Mass planting of the grasses produces a colourful display with fine foliage and showy blooms. They look pretty against a dark back-

ground and shall be placed so as to bask in morning or evening sunlight. **Care** Ornamental grasses have an inherent ability to withstand the extremes of drought and excessive rain and they are relatively pest and disease free. With proper care, grasses can remain undisturbed in the landscape for long periods of time. Grasses generally grow best in five to six hours of direct sun each day. Most grasses can benefit from mulching and from cutting back, usually just before new growth begins in the spring. Plants should be well-watered in the first season for good root establishment and

watering can be minimised thereafter. Amount of water will depend on the grass species, the site and the season. They do not require much feeding, and overfeeding may be avoided to discourage foliage at the expense of blooms. One application of a balanced fertilizer in spring is adequate. **Propagation** Some ornamental grasses can be grown from seed. Many others are cultivars, and must be propagated vegetatively, by division of rhizomes or by planting stem cuttings. (The author is a forest officer and can be contacted at 'nchandramohanreddy@gmail.com')

Need for specific prescription for life span of buildings

A national policy on life of buildings may be necessary to prevent disasters, says **K. SUKUMARAN**



THE DAY AFTER: The Lansdowne Building in Mysore which has been declared out of bounds for the public.

The collapse of the Lansdowne Building in Mysore and the tragic death of people caught in the debris must serve as an eye-opener to the authorities for laying down a policy for determining the future of old buildings whether they are private, government-owned or others. What are the causes for such collapses? Is faulty construction the major cause? Or, are there other reasons like lack of proper maintenance, official apathy or mere carelessness? The life of buildings may depend on design, materials used in construction, periodical maintenance, and repairs of seepages, cracks and the like. Construction of huts, tents and shelters in the Neolithic age used to be with wood and timber till almost 1000 A.D. Again, till concrete was invented, stones/mud/mortar/lime were the basic ingredients of construction. Fired bricks were, however, seen to have been used in 3500 B.C. in Babylon

and Susa. Huge stones were extensively used in ancient Egypt, an extraordinary feat, as in the case of the pyramids. Concrete revolution in later days was a Roman invention. Thatched roofing remained a speciality of the Gothic period. Lime and mortar constructions were a tested technology till cement and concrete was invented, as this provided a comparatively longer life to buildings. The Italian renaissance saw reformation in building construction technology and engineering. Use of iron and steel commenced during the 18th century. Industrial Revolution brought about mass production of steel in the 19th century leading to its extensive usage. Skyscrapers too sprang up in major Western cities during the latter part of the 19th century and continues since then. The building construction code came into being after engineering research and education commenced in many universities. In India, the year 1970 saw the

origin of a National Building Code (NBC). After a couple of revisions in the Eighties and Nineties, the present NBC was put in place in the year 2005. This embraces various aspects of construction such as design, plan approval by designated authorities, fire safety, high rise norms etc. Despite the rules regarding periodical inspections by the departments concerned, there has been no specific prescription pertaining to the life span of buildings. Buildings which are allowed to be occupied as residences or business premises even when they are found weak need to be checked at random. This alone will prevent collapse of old buildings in metros like Mumbai and Kolkata and other 'older' cities. Century-old buildings like the Lansdowne in Mysore were perhaps left uncared for, leading to the recent tragedy. There are many 'public' buildings, which were occupied by tenants; the original tenants sub-letting them to others

without the approval of the authority that own them. Steel is perhaps the most long-life material so far used in construction works. It is generally believed that tor steel can go on for a century without any damage. Modern engineering marvels are the result of innovative designs. Quality construction materials coupled with high level of engineering technology are the fundamental requirements of long life to buildings. Lime and mortar roofs will have their limitations. Periodic upkeep and maintenance will only enhance the life of a building. Periodic check by designated authorities will have to ensure the strength of every building which outlasts normal life. These procedures will have to be applied to all types of buildings, whether owned by private parties or government departments. A national policy in this regard needs to be put in place for avoiding collapse of buildings which will incidentally save valuable lives.

A concrete idea for construction

On the occasion of Concrete Day, **NAGESH PUTTASWAMY** looks into the basic paramount mixture so vital in construction

Concrete has been used as construction material for over 2000 years since the time of Roman Civilisation for construction of buildings, roads and other monuments. The cement in those times was the ash that came out of the volcanos (called the *pozzulonic ash*) and lime was used as binding material. Concrete is a mixture of cement, water, sand and broken stones (jelly) in a definite proportion which is a workable mass initially and hardens over a period of time. The concrete is normally recognised by its strength which is the compressive stress required to make a 150mm X 150mm X 150mm cube crack or fail in a machine called Concrete Testing Machine, it is designated as M10, M20, M25... so on. M20 concrete means this concrete can withstand a pressure of 20 Mega Pascals (relates to 200 kg force over an area of 1 cm X 1 cm).

missible silt content in sand is 5% to 6%. The filter sand supplied in big cities is not recommended. * Course aggregates or crushed stones or jelly as it is popularly known provides the mass and strength to the concrete mass. We should have a mix of all sizes of stone pieces below the specified size, for example, 20mm aggregates should be a mix of 20, 10, 6 mm aggregates, so that small pieces sit in between big pieces and give concrete a good mass. **Binding property** * Water is the life of concrete and until cement comes in contact, the mortar many not achieve any binding property. However excess water would dilute the binding property and affect its strength. This is referred to as water-cement-ratio by engineers. A lower water to cement ratio gives better strength. An ideal water cement ratio - for houses and other normal work with M20 concrete - should never exceed 0.50 (that is 25 liters of water for 1 bag of cement). Restricted water quantity is also difficult to handle, admixtures available as plasticisers can be used only with technical team of the cement manufacturer or the admixture manufacturer. * For procedures like curing, vibrating or compacting of concrete, one has to ensure that there are no leakages in the form work or centring. Modern cement reacts faster than old cement. It is better to keep concrete moist all along - start spraying water on concrete from about 3 or 5 hours of concreting. This reduces the appearance of hairline cracks. The curing should continue for about 28 days in concrete and 12 to 15 days for plaster and mortars. The author is civil engineer, and is part of the Indian Concrete Institute, Karnataka - Bangalore Centre.

Process The process of making and using cement concrete is covered by BIS guidelines. The making of concrete to get specific properties (like strength, for specific type of work etc.) is called concrete mix proportioning. The strength of concrete are influenced by the quality, strength and other properties of the ingredients in concrete like sand, jelly or crushed stones and cement. * Cement bags with ISI mark with number below indicate what type of cement you are using. The quality reduces with time, however if it is stored in well-protected rooms it can be used up to 60 days, but cement beyond 90 days from manufacture are not recommended. * Sand should be clean river sand or manufactured sand. Silt content (clay particles) in sand is very harmful for the concrete or mortar made. The manufactured sand will not have this problem however quarry dust is not manufactured sand. The per-