



Urban Harvest

Plant a Diverse Garden

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Information is coming at us from all directions announcing what we should or shouldn't eat. This food or that will help make us skinny, have energy or avoid cancer. Scientific studies flood news sources touting the next, best way to live or eat.

There exist attractive incentives for farmers to produce specific crops that in turn limit production to certain high-yield plants such as corn, soybeans and wheat. Consequently, biodiversity (variety of life forms) has diminished in our food system.

It is estimated one in five farm animal breeds is near extinction and one in four acres of United States cropland is used to grow corn alone. Smaller farms are not rewarded for growing a diversity of produce. We are left with acres of monocultures (single crops), and we follow without question.

The emphasis on maximum production for a few crops requires extensive irrigation and large amount of non-renewable fossil fuel-based inputs such as fertilizers and pesticides. Methods used to increase crop yield, including planting crops closely together and planting the same crop year after year can deplete soil nutrients available to the plant. The result is a lowering of crop nutritional quality.

The cost, from multiple perspectives, for reducing biodiversity in our food system is one that cannot be ignored. Current production decisions result in food processors using high-fructose corn syrup and hydrogenated soy oil in most processed foods, helping to make sweets and fats convenient and inexpensive for consumers.

The reliance on a few, very productive crops or animal breeds provides an analogy in our landscaping choices. Homeowners and the landscape industry are quick to jump on the perfect plant - beautiful color, drought tolerant and easily accessible in nurseries.

Several years ago, the Knock-Out rose became the darling of the landscape industry across the country. Soon we saw street medians, building entryways and strip center parking lots filled with the same species. However, not only is it losing its appeal due to overuse, but by being planted as a monoculture, it did not prove resilient enough to withstand a Rose Rosette virus. Once infected, no amount of spraying or praying will save it.

Typically planted close together in large groups, the roses succumb to the virus quickly, likely resulting in a knock-out punch for all the Knock Outs.



Monarch butterflies are perhaps the most recognizable of butterflies and the one with the most unique habit of migrating long distances. A single Monarch can travel thousands of miles to its winter home in Mexico.

Sometimes, a whole animal species can be affected by our reliance on a single-plant choice. Monarch butterflies continually fascinate us - perhaps the most recognizable of butterflies and the one with the most unique habit of migrating long distances. A single Monarch can travel thousands of miles to its winter home in Mexico.

To our dismay, they are faced with threats, both natural and man-made, resulting in a drastic population drop.

Climate change is altering the timing of migration and rainfall patterns in their forest habitat in Mexico.

Both in the United States and Mexico, more of the open lands where milkweed (the genus *Asclepias*, the food of choice for Monarch caterpillars) once grew in abundance, has been converted primarily to farmland and roads. The forests that shelter them in winter are being cut down to make way for progress and leaving what wooded areas remain fragmented and too small to support large populations.

Finally, widespread use of pesticides kills Monarchs.



A native green milkweed, *Asclepias viridis*.



The nursery trade, seizing the opportunity, has been growing milkweed to meet the demand. Shown is nursery-grown Mexican milkweed

In an attempt to remedy the situation, we are being asked to plant milkweed wherever we can. The nursery trade, seizing the opportunity, has been growing milkweed to meet the demand. However, once again, the focus is on one main species - Mexican butterfly weed or *Asclepias curassavica*, a tropical variety. Grown in intensive nursery conditions, plants often are sprayed with pesticides to kill aphids, which are attracted to them and make the plants unappealing to buyers; however, the pesticides result in dead butterflies.



Milkweed is the food of choice for Monarch caterpillars. Shown are Monarch caterpillars dining on milkweed.

Many milkweeds are not only native to East Texas and Louisiana, but can expand a Monarch's dining choices. Dr. [Charles Allen](#) of the [Cajun Prairie Habitat Preservation Society](#) (CPHPS) has studied milkweeds extensively and offers tips on growing a number of native milkweeds successfully. Not all are readily available, but seeds of several can be ordered online or found at smaller nurseries. More diversity in the foods we eat and the plants we grow has benefits for wildlife and humans.

This column is sponsored by Urban Harvest. To find out more about community gardens, school gardens, farmers markets and gardening classes, visit www.urbanharvest.org.