

3 SISTERS

SMART COMANION PLANTING IDEA

CORN: Provide Structure

BEANS/PEAS: Brings up nitrogen from the soil to feed the corn

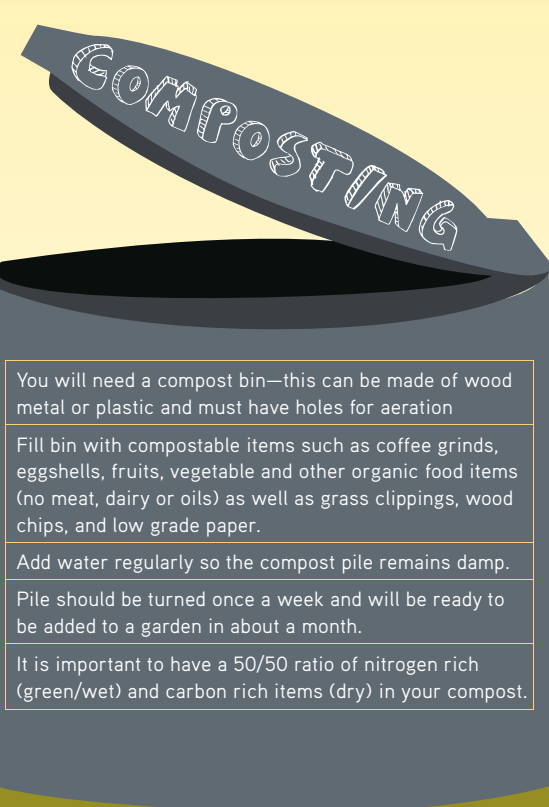
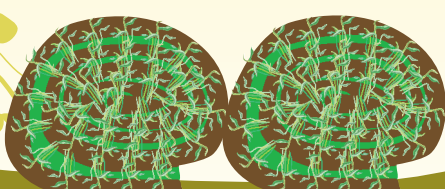
SQUASH: Keeps the roots cool



SOD LOVESEAT

CUT AND REMOVE SOD: Provides planting area

ROLL-UP AND PLACE TOGETHER: Makes a perfect love seat so you can sit in your garden with your friends admire all your hard work.



You will need a compost bin—this can be made of wood metal or plastic and must have holes for aeration

Fill bin with compostable items such as coffee grinds, eggshells, fruits, vegetable and other organic food items (no meat, dairy or oils) as well as grass clippings, wood chips, and low grade paper.

Add water regularly so the compost pile remains damp.

Pile should be turned once a week and will be ready to be added to a garden in about a month.

It is important to have a 50/50 ratio of nitrogen rich (green/wet) and carbon rich items (dry) in your compost.

IRRIGATION

DRIP OR TRICKLE	Allows water to be emitted uniformly and slowly at the plant location so that the majority of the water is placed in the root zone.
PLASTIC OR PAPER MULCHES	Greatly reduces evaporation losses from the soil surface. If the mulch is opaque, it also will control weeds, which rob your soil of moisture.
ORGANIC MULCHES	Includes shavings, compost, rice hulls, bark, straw, newspaper and similar materials. Place on a layer that 2-3" thick to be the most effective. In addition to their value for moisture conservation, they can be tilled into the soil after cropping to improve the organic content.
WEED CONTROL	Essential to reduce competition between crops and weeds for soil moisture. Best and easiest to remove weeds while the weeds are small.
SELECT CROPS W/ LOWER WATER USE	Plants with shallow root systems will require more frequent irrigation to maintain a healthy growth rate. Also, be certain to plant crops at the time of year when they are best adapted. See planting calendar for planting times and root depths.
PROPER TIMING AND AMOUNT OF IRRIGATION	Where drip irrigation is to be used, the system should be operated frequently to maintain soil moisture (letting the soil go too dry is also a waste of water because it affects overall yield)—general rule is about an hour every 2-3 days (greater frequency for shorter periods may be needed during hotter weather for shallow-rooted crops).

COMPOSTING REMEDIES

PROBLEM	CAUSE	CURE
FOUL ODOR	Too wet	Mix pile or add coarse, dry material + mix
	Not enough air	Turn pile
	Too much nitrogen	Add more brown materials + mix
PILE NOT HEATING	Pile too small	Build larger pile
	Pile too dry	Mix pile and add moisture
	Poor aeration	Mix pile
	Not enough nitrogen	Add more green material and mix
PILE ATTRACTING PESTS	Materials too coarse	Chop or shred materials
	Wrong materials used	Remove all meat and dairy
	Kitchen waste on top	Bury kitchen waste; layer with brown materials

PLANTING CALENDAR

Plant from seed in indicated months.

SOUTHERN CALIFORNIA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Asparagus (‡)	•	•	•									
Beans, Snap (†)			•	•	•	•	•	•				
Beans, Lima (†)				•	•	•	•	•				
Beans, Fava (†)	•									•	•	•
Beets (•)	•	•	•	•	•				•	•	•	
Broccoli (•)*	•	•	•					•	•	•	•	
Brussel Sprouts (•)*							•	•	•	•	•	
Cabbage (•)*	•	•	•									
Cantaloupe (†)				•	•	•	•	•				
Carrots (†)	•	•	•	•	•	•	•	•	•	•	•	•
Cauliflower (•)*	•	•	•					•	•	•	•	
Celery (•)	•	•	•					•	•	•	•	
Chives (•)	•	•	•									
Collards (•)	•	•	•					•	•	•	•	
Corn (‡)			•	•	•	•	•	•				
Cucumbers (†)	•	•	•	•	•	•	•	•				
Eggplant (†)*			•	•	•							
Endive (•)	•	•	•						•	•	•	•
Herbs (‡,†)	•	•	•								•	•
Jicama				•	•							
Kale (•)	•	•	•						•	•	•	•
Kohlrabi (•)	•	•	•						•	•	•	•
Leeks (•)	•	•	•						•	•	•	•
Lettuce (•)	•	•	•									
Mustard (•)	•	•	•	•	•				•	•	•	•
Okra (†)				•	•	•	•	•				
Onions, Bulb (•)	•	•	•								•	•
Onions, Bunching (•)	•	•	•						•	•	•	•
Parsley (†)	•	•	•	•	•							
Parsnips (‡)	•	•	•	•	•							
Peas (†)	•	•	•	•	•				•	•	•	•
Peppers (†)			•	•	•	•	•	•				
Potatoes (‡)	•	•	•	•	•							
Popcorn (‡)				•	•	•	•	•				
Pumpkins (‡)				•	•	•	•	•				
Radishes (•)	•	•	•	•	•	•	•	•	•	•	•	•
Roquette	•	•	•						•	•	•	•
Rutabagas									•	•	•	•
Spinach (•)	•	•	•									
Squash, Summer (†)		•	•	•	•	•	•	•				
Squash, Winter (‡)		•	•	•	•	•	•	•				
Sunflowers (‡)		•	•	•	•	•	•	•				
Swiss Chard (†)	•	•	•						•	•	•	•
Tomatoes (‡)*		•	•	•	•	•	•	•				
Turnips (•)	•	•	•	•	•	•	•	•	•	•	•	•
Watermelons (‡)			•	•	•	•	•	•				
Winter Zucchini (†)									•	•	•	•

‡ = Deep-Roots † = Intermediate Root Depth • = Shallow Root Depth *Best Transplanted into the garden after starting in flats or individual containers.

TYPE	ADVANTAGES	DISADVANTAGES
SLOW OUTDOOR PILE	Easy to start and add to. Low maintenance.	Can take a year or more to decompose. Nutrients are lost to leaching. Can be odorous and attract animals and flies.
HOT OUTDOOR PILE	Fast decomposition. Weed seeds and pathogens are killed. More nutrient-rich because less leaching of nutrients. Less likely to attract animals and flies.	Requires lots of effort to turn and aerate and manage the process. Works best when you have lots of materials to add right away, as opposed to a little bit at a time.
BINS AND BOXES	Neat appearance. They heat more easily than a pile. Deters animals. Lip keeps rain off compost. If turned, decomposition can be quite rapid.	Cost you time to build the bins or money to buy them.
TUMBLERS	Self-contained and not messy. Can produce quick compost. Relatively easy to aerate by turning the tumbler. Odor not usually a problem. No nutrient leaching into ground.	Tumblers are costly. Volume is relatively small. Works best if material is added all at once.
PIT COMPOSTING	Quick and easy. No maintenance. No investment in materials.	Only takes care of small amounts of organic material.
SHEET COMPOSTING	Can handle large amounts of organic matter. No containers required. Good way to improve soil in large area.	Requires effort to till material into the soil. Take several months to decompose.
PLASTIC BAG OR GARBAGE CAN	Easy to do all year-round. Can be done indoors. Requires no back labor.	Is mostly anaerobic, so smell can be a problem. Can attract fruit flies. Need to pay attention to carbon/nitrogen ratio to avoid a slimy mess.
WORM COMPOSTER	Easy. No odor. Can be done indoors. Can be added to continuously. So nutrient-rich, it can be used as a fertilizer. Good way to compost food waste.	Requires some care when adding materials and removing castings. Need to protect worms from temperature extremes. Can attract fruit flies.

RESOURCES

BOOKS:	<i>The Complete Book of Edible Landscaping</i> , Rosalind Creasy, A Sierra Book Club Book, 1982. Also see other books by this author. (This is the definitive book on the topic!)
	<i>How to Grow more Vegetables, and Fruits, Nuts, Berries, Grains, and Other Crops Than you Ever Thought Possible on Less Land Than You Can Imagine</i> , John Jeavons, Ten Speed Press; 6th edition, 2002.
	<i>Encyclopedia of Edible Plants of North America</i> , Francois Couplan, Keats Publishing, 1998.
	<i>The Rodale Book of Composting: Easy Methods for Every Gardener</i> , Grace Gershuny, Rodale Books, 1992.
	<i>Designing and Maintaining your Edible Landscape Naturally</i> , Robert Kourik (introduction by Rosalind Creasy)
MISC:	<i>Front Yard Gardens: Growing More Than Grass</i> , Liz Primeau
	<i>Pat Welsh's Southern California Gardening: A Month-By-Month Guide</i> , Pat Welsh
	Slow Food Los Angeles www.slowfoodla.org
	Los Angeles Master Gardening Program celosangeles.ucdavis.edu/garden Master Gardener Email Gardening Helpline mglosangeleshelpline@ucdavis.edu Master Gardener Phone Helpline 323-260-3238
	Griffith Park - Free compost and classes by master composters 323-913-4166

MAKE YOUR OWN EDIBLE ESTATE

WHAT YOU WILL NEED:	BASIC INSTRUCTIONS:	THINGS TO CONSIDER:
A rented sod-cutter	1. Use a sod-cutter to remove existing grass, roll it up, give it away, compost it, or find a new use for it	Where is south? Where are the shady and sunny areas?
A truck load of compost, calculated to cover the size of your estate	2. Use roto-tiller to loosen compacted soil	Where should tall trees or lower groundcover go? Are there views to frame or obscure?
Shovels, hand trowels and rakes	3. Spread around about 2-5 inches of compost	What do you want to eat from your estate?
Friends and neighbors to help	4. Till the soil again to mix in the new compost	What can't you get from the grocery store?
Irrigation system, such as soaker hoses	5. Mark out a plan for your edible estate with stakes and string	A lot of fruits and vegetables grow on vines, do you have something for them to grow on?
Stakes and string	6. Plant your seedlings, starts, trees and seeds according to the planting calendar	How do you want to move through the edible estate? Where should paths go?
Fencing material to deter animals	7. Water them in thoroughly with a garden hose	What kind of mulch to use? Straw, bark, compost, and leaves will retain moisture, block weeds and decompose into the soil.
Selected vegetables, herbs and fruits as seeds, starts, or trees for your region	8. Install an 18" - 24" fence to deter local animals, like rabbits, if you have problems	Is there an area in your estate for people? A place to relax and enjoy the plants and food growing?
	9. Establish composting system	



Blue Velvet Restaurant
Rooftop Garden
 Established October 2006

Edible Estates was invited by architect Alexis Rochas to collaborate on the garden that he and his students from SCI_Arc had been commissioned to create for the rooftop of The Flat, a new apartment conversion in downtown Los Angeles. Their sophisticated design of irrigated curving planted troughs under an undulating trellis canopy was originally imagined to be planted with low-water natives. This would have been a sensible choice indeed, especially for a harsh urban environment such as this. But what happens when this once vacant rooftop is put to work? We had the idea that this precious wasteland for mechanical production could become not only a green oasis for the residents of the building, but also a place to produce fresh, local herbs, fruits and vegetables for Blue Velvet, the restaurant on the ground floor.

— Fritz Haeg, Edible Estates

SYNTHETICSCAPES

This rooftop garden has been produced by the SCI_Arc Design-Build Research Laboratory, collaboration between students, faculty, developers and city officials. We are studying and producing synthetic and natural landscapes that serve as active-surface economies able to resist the formal, physical and ecological attributes of an animate urban tissue. The project investigates the development of adaptable structures able to fulfill Green Roof requirements within the city of Los Angeles by weaving physical and biological processes into a discrete and self-sufficient ecosystem. The Rooftop Garden consists of a suspended corrugated metal blanket forming a series of green channels or plow lines. An alternating series of hard and soft surface treatments weave together a fertile ground for the production of edible species and a unique series of platforms and seating spaces overlooking the downtown skyline to the east and the extensive Los Angeles horizon towards the south. Each plow-line channel accommodates an automatic drip irrigation system over an engineered growth medium, much less dense than natural soil in order to minimize dead loads.

THE CHIEF

As an Angelino, a father, and a chef, I am proud to be associated with the Edible Estates project on the roof at The Flat. In this day and age, there is a disconnect between the source of our food and the finished product presented on the dining table. There are very few community gardens in downtown Los Angeles. Those that do exist are disappearing at an alarming rate. At the same time the replacement of the family farm by "big box farms" is ending our culinary heritage by extinguishing the availability of flavorful, unique fruits and vegetables.

We are so excited about The Flat's partnership with SCI_Arc and Edible Estates. The rooftop garden allows us to help preserve the agricultural history of Los Angeles, introduce children to an inner city working garden, and enjoy the garden's beautiful product as it is presented on the table at the restaurant. We relish the availability of heirloom tomatoes, fresh herbs, and unique fruits and vegetables grown in the garden for our menu. Blue Velvet Restaurant is dedicated to the use of the most wholesome and flavorful seasonal products available. Fresh food is our passion.

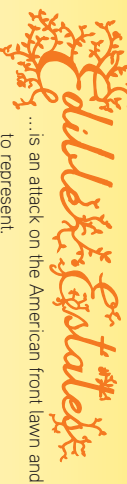
— Robert J. Harstein, Chef/Partner, Blue Velvet Restaurant

THE FLAT

The building that sits under the rooftop garden used to be a Holiday Inn and has recently been converted into an apartment community. Many have compared The Flat to a hip, New York style complex. It features a chic bar, a restaurant run by one of Wolfgang Puck's understudies, barbershop/alon, community business center including fax and internet, pool and custom workout facility. The new residential environment promises not just rental spaces, but an atmosphere where people globally who are always on the move will want to connect.

MKT development (the creator of The Flat) is a "for profit" organization with altruistic intentions. MKT believes and has proven that dramatic improvement of at least one single property in a neighborhood will not only add to living conditions at that property itself but also will inspire and stimulate more improvement by other property owners in the neighborhood. MKT believes that responsible long-term management of improved properties continues to support the benefits received by the initial investment. This creates a more desirable neighborhood for people to live in, attracts more concerned tenants and owners and supports strong property valuations in the short and long terms.

— MKT Development



...is an attack on the American front lawn and everything it has come to represent.

...reconciles issues of global food production and urbanized land use with the modest gesture of a domestic garden.

...is an ongoing series of projects to replace the American front lawn with edible garden landscapes responsive to culture, climate, context and people.

...is a practical food producing initiative, a place-responsive landscape design proposal, a scientific horticultural experiment, a conceptual land-art project, a defiant political statement, a community out-reach program and an act of radical gardening.

OUR LAWNS

Why do we dedicate so much land to something with so little function that requires the consumption of so many precious resources and endless hours of maintenance while contaminating our air and water?

The American front lawn is almost entirely a symbolic gesture. Exactly what it represents has shifted from its ancestry in English estates to today's endless suburban carpet of conformity. Originally manured by grazing animals, an ornamental sweeping lawn would occupy otherwise valuable farmland surrounding a manor estate, demonstrating the owner's wealth while keeping the production of his vegetable garden out of view. In this tradition, today's

American lawn has become the default surface for any defensible private space. An occasional lawn for recreation can be a delight, but most lawns are only occupied when they are being tended.

The lawn devours's resources while it pollutes. It is maniacally groomed with mowers and trimmers powered by the two-stroke motors responsible for much of our greenhouse gas emissions. To eradicate invading plants and pests it is drugged with pesticides that are then washed into our water supply with sprinklers and hoses dumping our increasingly rare fresh drinking resource down the gutter. Of the 30 commonly used lawn pesticides, 17 are detected in groundwater and 23 have the ability to leach into groundwater sources.

The lawn divides and isolates us. It is the buffer of anti-social man-land that we wrap ourselves with, reinforcing the suburban alienation of our sprawling communities. The mono-culture of one plant species covering our neighborhoods from coast to coast celebrates puritanical homogeneity and mands conformity. Lawns cover 40 million acres of the United States while 349 million acres are used for crops.

OUR FOOD

Meanwhile at the grocery store we confront our food. Engineered fruits and vegetables wrapped in plastic and styrofoam are cultivated not for taste, but for ease of transport, appearance and uniformity, then sprayed with chemicals to inhibit diseases and pests that thrive in an unbalanced ecosystem. Organic farming accounts for less than 1% of the United States agriculture output. The produce in the average American dinner is trucked 1500 miles to get to the plate. We don't know where our fruits and vegetables came from or who grew them. Perhaps we have even forgotten that plants were responsible for this industrially produced commodity we are consuming.

This detachment from the source of our food breeds a careless attitude towards our role as custodians of the land that feeds us. Perhaps we would reconsider what we put down the drain, on the ground and in the air if there was more direct evidence that we will ultimately ingest it.

THE EDIBLE ESTATES INITIATIVE

Edible Estates proposes the replacement of the American lawn with a highly productive domestic landscape. Food grown in our front yards will connect us to the seasons, the organic cycles of the earth and our neighbors. The banal lifeless space of uniform grass in front of the house will be replaced with the chaotic abundance of bio-density, in becoming gardens we will reconsider our connection to the land, what we take from it and what we put in it. Each yard will be a unique expression of its location and of the inhabitants and their desires. Valuable land will be put to work.

The Edible Estates project will be implemented in nine cities in the United States over the next three years. An adventurous family in each town will offer their typical suburban front lawn as a working prototype for the region. They will dare to defy the sweeping continuity of their neighborhood's green lined streets. Working together with the family and additional helpers, the front lawn will be removed and replaced with an edible landscape. This highly productive garden will be designed to respond to the unique characteristics of the site, the needs and desires of the owner, the community and its history and especially the local climate and geography.

With the modest gesture of reconsidering the use of our small individual private yards, Edible Estates takes on our relationship with our neighbors, the source of our food and our connection to the natural environment.

LOS ANGELES is the site for the second application of Edible Estates initiative. Since settled by native humans thousands of years ago, L.A. has always been a welcome location for the production of food. It was once home to the largest concentration of wine vineyards in the country and was the capital of citrus production until the population boom and subsequent water wars of the 1920s. Land use was still more than 20% agricultural in 1969. While the population of Los Angeles County rose almost 50 percent in the 1950s, it sacrificed 3,000 acres of farmland a day.

Toddy urban agriculture remains only an occasional novelty in the city or in the case of the South Central Farm, which was recently bulldozed in favor of warehouses (an inconvenience whose value is unrecognized by the march of urban "progress". This city, once a combination of fertile flood plain and low chaparral, now 90% covered with pavement or buildings. Lawns cover more than 16 million acres in California and the emissions produced by lawnmowers contribute significantly to our poor air quality. Every hour of lawn mowing produces the same amount of harmful, smog-forming emissions as 40 new cars run for an hour. More than 50% of domestic water use in Los Angeles is used to keep lawns green.

A few other factors make Los Angeles a perfect place to introduce the Edible Estate. A lawn is an easy target in a region that receives no rain for most of the year, and the suburban front lawn in particular is ripe for reconsideration in a city focused on the microvented refuge of the private house with corresponding lack of accessible public green space. We think Los Angeles is ready for Edible Estates!

curated by Irene Fatsios, an exhibition of projects by contemporary LA artists presented at the L.A. County Fair in September 2006.

Edible Estates Headquarters and Workshop

September 29th - October 30th
 1200 North Avenue Street, LA, CA 90026
 www.machineproject.com

Fair Exchange

September 8th - October 1st, 2006
 Millard Sheets Gallery
 1101 W. McKinley Ave, Pomona, CA 91768

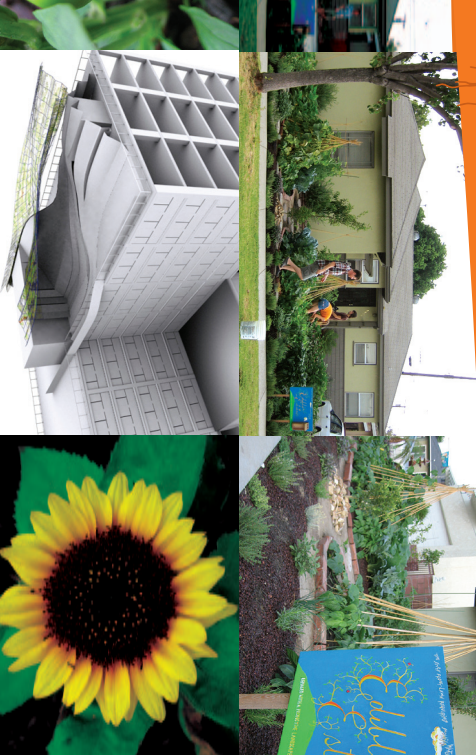
THANKS TO:

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- Michael Kane
- Melissa Madrenhill
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- David Procter
- Stephanie Scott
- Rosaa Sherry
- EMILY STAFF PHOTOGRAPHER
- Talaji Oviid

PLANTS AND MATERIALS PROVIDED BY:

- Arundine Garden Centers
- EXHIBITORS
- Dan Dazzer, Millard Sheets Gallery Director
- Irene Fatsios, "Fair Exchange" Curator
- Exhibition at the L.A. County Fair
- Mary Allen, Director of Machine Project
- SARASWATI TRAM
- Kelli Becker and Audrey White
- WISKO
- Jacinto Alvarado and Fritz Haeg
- WAGNER
- MKT Development
- Arundine Garden Centers
- The Durfee Foundation
- DESIGN
- Debra Threlk of Graphic Sciences

LOCATED AT
The Fort Family Home
 6530 Dennerd Street
 Lakewood, CA 90713
 Established on May 29th, 2006



Amaranth, Angelica, Anise-Hyssop, Artichokes, Baby Lettuce, Bay Laurel, Bergamont, Bitter Melon, Borage, Brussels Sprouts, Calendula, Carrots, Chervil, Chickweed, Chives, Cucumber (middle eastern), Cumin, Eggplants (interesting types), Elder, English Thyme, Fennel, French Lavender, Garlic Chives, Kale, Lemon Thyme, Lemon Verbena, Lavage, Marjoram, Mint, New Zealand Spinach, Peppers (all types), Pettilia, Pole Beans (all types), Purslane, Quince, Radicchio, Rhubarb, Rosemary, Tarragon, Tuberose, Borage

OWNER
 Alexis Rochas, Instructor

PROJECT TEAM
 Jeremy Backler, Leigh Bell, Reynolds Canillo, Deborah Fuentes, John Klein, John Ford, Santiago Medina, Leandro Rolon, William Skank, Patrick Shields.

ENGINEERING
 Bruce Danziger, Arup, Los Angeles

LANDSCAPE
 Fritz Haeg, Edible Estates

CMF
 Robert J. Harstein, Blue Velvet Restaurant

CMR
 Bret Mosher, MKT Development

Blue Velvet Restaurant
Rooftop Garden
 750 South Garland Avenue, LA, CA 90017