

# Winning the War on Weeds in a Native Garden

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## Definition of weeds is purely an arbitrary term!

- Considered troublesome, difficult to eradicate, particularly fast growing
- Grows and reproduces aggressively outside of native habitats
- Competes with our cultivated plants
- Hosts & vectors for plant pathogens or animal pests
- Irritation & poisons like thorns/prickles/burrs
- Causes root damage to engineering works like drains & foundations

## Think like Mother Nature

- Cover all bare dirt
- Diversity
- Nutrient recycling
- Healthy soil = healthy plants
- Mature eco-systems

## Understand lifecycles:

- *Annual weeds that emerge with rains*
  - Remove before seeding
  - Wild Oats, Foxtail, Wild Rye, Mustard, Wild Radish, Filaree, Thistle, Wild Carrot, Burr Clover, Spurge, Pigweed, Bedstraw, Crabgrass
- *Perennial weeds*
  - Grub out or shade out
  - Bindweed, Bermuda, Oxalis, Johnson Grass, Dandelion, Nut Sedge, Ivy, Poison Oak, Curly Dock

## Problems with traditional practices:

- Plastic mulch never breaks down, but the bark on top becomes compost!
- Herbicides destroy the soil biology and affect beneficials of all kinds
- Tilling creates compaction
- Spray irrigation brings up weeds all year!

## Design solutions:

- Mulch
- Living mulch – plants that shade out weeds
- Hardscape & paths (weed-free)
- Don't forget some accent plants (avoid monoculture)

**Smother weeds using:**

- Newspaper (5 layers) Avoid glossy sections  
Black & white, colored okay  
Dampen to avoid blowing away, cover w/mulch
- Cardboard, overlapped
- Compost
- Natural fiber carpet
- Bark mulch

**Sheet Composting:**

- Layers of organic matter to plant into
- Make a planting pocket of good soil
- Similar to Lasagna Gardening
- One possible lawn removal “recipe”  
1” manure or alfalfa (high N)  
5 layers newspapers (weed barrier)  
2” compost  
3” free arbor mulch  
1” purchased bark chips on top

**Mulch Calculations:**

Bulk materials are measured in cubic yards.  
To figure how many yards you need:

Square foot coverage (width x length)  
X number of inches of depth  
Divide by 324

Example: 3” of mulch on an area, 20 x 30  
20 x 30 area = 600sft  
 $3 \times 600 = 1800 / 324 = 5.555 = 5 \frac{1}{2}$  yards

**Solarization:**

- During hot weather
- Scalp the turf
- (optional, add compost or manure)
- Moist soil
- Clear plastic
- Tack down edges
- No air pockets
- 6-8 weeks
- Sterilizes the top 3-4” of soil

**Other methods of organic weed control:**

- Flaming (cracks in hardscape)
- Boiling water (kills tops)
- HMO (hydro-mechanical obliteration)
- Animals (goats/chickens)

**Organic Bermuda Grass control:**

- Rent a sod-cutter, make two passes to remove most of the rhizomes.
- Remove to landfill or other location to dry thoroughly (then can reuse soil)
- Rototill lightly, and rake out Bermuda
- Follow up by spot hand weeding anything that re-sprouts

**Organic Oxalis control:**

- I haven't really found any easy method (sigh)
- Understand the life cycle
- Persistent hand pulling before it flowers, for three years
- Weeding can be combined with lots of smothering, but will need to replenish paper/cardboard annually
- Chickens do eat Oxalis

**Appreciation for weeds:**

- Eat the weeds!
  - Mustard, Purslane, Mallow, Fennel, Wild Garlic, Dandelion, Miner's Lettuce, Wild Radish
- Medicinal plants
  - Dandelion, Bedstraw, Milk Thistle, Horehound, Mallow, etc.
- Beneficial effects
  - Soil crowbars
  - Bait crops
  - Erosion control
  - Soil improvement

**Spreading plants choke out weeds:**

- Sages: Salvia 'Bee's Bliss', 'Terra Seca', sonomensis, leucophylla 'Pt. Sal', 'Dara's Choice', spathacea
- California Lilacs: Ceanothus 'Yankee Point', gloriosus 'Anchor Bay', 'Heart's Desire', 'Joan Mirov', hearstiorum
- Manzanitas: Arctostaphylos uva-ursi spp. (Emerald Carpet, Pt. Reyes, Radiant), 'Pacific Mist', 'John Dourley', hookeri spp. (Wayside, Ken Taylor, Monterey Carpet), edmundsii spp. (Carmel Sur, Rosy Dawn, Bert Johnson)
- California Buckwheat - Eriogonum fasciculatum 'Warriner Lytle'
- California Coffeeberry - Rhamnus californica 'Seaview Improved'
- Coyote Bush - Baccharis 'Pigeon Point' or 'Twin Peaks II'

## **Step by step process for converting a lawn to a native garden**

([www.naturalfrontyards.com](http://www.naturalfrontyards.com) )

Not for Bermuda or Oxalis (different treatments)

1. Remove unwanted shrubs
2. Cap off sprinkler system underground, abandon pipes
3. Scalp lawn (optional)
4. Cut back edges near hardscape, 4" deep, 15" in, sloped to lawn
5. Mound extra soil in attractive berms (or use elsewhere)
6. Cover with paper and 4" arbor chips
7. Plant small plants in planting pockets with mycorrhizae & compost
8. Install drip lines
9. Cover with attractive mulch
10. Spray with compost tea (AACT)

### **Resources:**

- Bay Friendly Sheet Mulching information  
<http://www.stopwaste.org/home/index.asp?page=1153>
- UC Davis integrated pest management info:  
[http://www.ipm.ucdavis.edu/PMG/weeds\\_intro.html](http://www.ipm.ucdavis.edu/PMG/weeds_intro.html)
- Invasive plant council:  
<http://www.cal-ipc.org/resources/outreach/plantid.php>
- USDA weed information  
<https://plants.usda.gov/java/invasiveOne?pubID=Cal-IPC>