



Eco-friendly Vegetation Management Utilizing Goats



Why Goats?



GOATS

Cost effective
Invasives
Media
No chemicals
Steep slopes
Fertilizer
Green
Environmentally friendly
Weeds
Quiet
Sustainable
Safe by water
Crime reduction
Low impact
Fire break
Kills seeds

HOOF

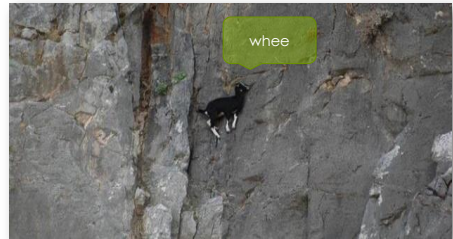
ON THE



Goats are as **green** as you can get!

They are quiet, efficient and entertaining

They can go where people and machines can't go safely



Goats have a lower impact on sensitive areas



such as near waterways

They work in areas where hazards to people, such as needles, trash and criminal activities occur

(Seattle: Pine Street Hill Climb under the viaduct)



and on steep slopes



By consuming the brush they reduce the plant biomass, the fire fuel load and the residual seed bank



Most weed seeds are sterilized in a goat's digestive system, therefore they do not spread the problem



Goats tackle invasive species and nuisance weeds

- Ivy
- Blackberry
- Scotch Broom
- Japanese Knotweed
- Thistle
- Nettle
- Salal
- and many others

They are media magnets!



Goats are great for PR and media exposure

(Colbert Report, 2010)

"People Destroying America"
Colbert Report 2010



Chicago Gets Goats to Graze at O'Hare

Headlines at 8:30: Goat herd deployed to clean up historic "Congressional Cemetery"

Military base recruits goats for poison ivy duty

Goats finishing their work at Naperville park

Goats as groundskeepers? Golf course says employing animals is eco-friendly alternative

Edgewood turns to goats to clear invasive plants

GOATS IN BOATS: AN ANSWER TO INVASIVE SPECIES ON ISLANDS?

GOATS -- MINNEAPOLIS' LATEST WEAPON IN WAR ON BUCKTHORN?

Goats help clean up habitat

Goats in Detroit? Councilman explores new way to address unruly lawns

Weed-eating goats and sheep descend on Candler Park.

How to Get Your Goats



We...

- ✓ are fully insured
- ✓ fence in the goats rather than tether them
- ✓ assist the herd by cutting hard to reach brush
- ✓ tend the herd, not leave that to the customer
- ✓ live on site 24/7 until completion of the job
- ✓ provide shelter in extreme weather

Site Evaluation

Prior to goats' arrival, the site is evaluated for hazards such as heavy traffic, high crime, poisonous plants, chemical contamination or dangerous garbage



Time and Cost are Estimated

The dimensions of the area to be cleared, along with vegetation type and density, time of year, and topography all factor in to the quote



What We Do For You

Supply and install electrified netting to keep goats in and predators out



24/7 Supervision

A wrangler transports animals, lives on site, sets up fencing, cares for and assists the herd, and talks to the public and media



How Long?

120 goats will clear **one acre** of moderately dense brush (less than 1.5 meters) in **6-8** days, or dense brush (over 1.5m) in **10-14** days

How Long?

15 goats will clear **one quarter acre** of moderately dense brush (less than 1.5 meters) in **7-10** days, or dense brush (over 1.5m) in **10-14** days

Steep Slope Comparison

Human

- \$10,000 per acre
- Cuts, collects, hauls
- Noisy, fuel emissions
- High carbon footprint
- Liability and injury claim potential

Goat

- \$2250-\$3000 per acre
- Eats, ruminates, fertilizes
- Quiet, fun to watch
- Low carbon footprint
- No liability or injury claims potential

Before

After



Before

After



Ministry of Forests and Range: How can broom be controlled?

"Control of broom has been achieved using goats, although grazing may have to be repeated to treat sprouts from cut stems and banked seeds."

BC Ministry of Agriculture and Food

"La Mancha goats were effective grazers on a small plot on southern Vancouver Island."

Invasive Plant Council of BC

"Grazing by goats and consumption of seeds by chickens have been shown to reduce broom infestations."



The Nature Conservancy

"...blackberry is readily eaten by goats throughout the year"

Bio-Integral Resource Center (BIRC)

"Goats and sheep cost less to use than mechanical and chemical control methods"

Province of

British Columbia Ministry of Forests 1992

"Good control of broom and salad (*Gaultheria shallon*) was attained with La Mancha goats on a small project in the Duncan Forest District"



What We Need From Our Customers

- Parking permission for the Herd Hauler
- Sidewalk closure or appropriate signage
- Press release if you want media coverage
- Notify adjacent businesses or neighbours
- Notify the Police that the goats and vehicle will be on site

In order for us to do business in your city, we need your help

1. Relaxation or amendment to Nanaimo bylaw 4923, section 8 a, which states "no person shall keep or harbour Livestock....not less than (1) acre".

In order for us to do business in your city, we need your help

2. Recognize that our use of animals does not constitute the definition of Agriculture under the zoning bylaws; "the use of land or buildings for the growing, rearing, producing and harvesting of agricultural products, or raising of livestock" so should not be confined to Zones AR1 or AR2.

In order for us to do business in your city, we need your help

3. We need to keep our Herd Hauler on site and inhabit it for the duration of the job

In order for us to do business in your city, we need your help

4. As required by Animal Control, we will never have intact male goats (bucks) within our herd and the animals will be contained at all times

Thank you for your consideration



Issaquah Highlands Community Association

Issaquah Highlands Community Association, the association managing a large master-planned community, has found that certain passive open space tracts are best maintained by deploying goat herds in early summer. These tracts, often located on steep slopes between houses, are very difficult for humans to maintain (and manage), but are ideally suited to goat herds. Where a human crew would cost as much as \$10,000 per acre to cut, collect and remove the high grass and light brush residue from these areas, a goat herd can be brought in for 22-25% of the price. The goats are at their best in places which humans find difficult to access, whether on foot or by vehicle, as the goats can be herded down "chutes" of fencing to their work area. The goats have several less-tangible but important pluses in their work, too: they fertilize the tract which helps the slope stabilization grasses grow in even better, and the community itself loves to watch the goats at work. The goats have proven so popular, in fact, that when they were cut from the budget during a "tight" year the community voted overwhelmingly to reinstate the goats and pay a bit more for the pleasure (and performance).

"We have found them to be an unbeatable value and crucial addition to our vegetation management program."

The community now spends about \$36,000 per year for goat herds to manage vegetation on 16+ acres (an average cost of \$2,250 per acre, smaller tracts average closer to \$3,000 per acre due to their inherent constraints). Goat productivity is slightly variable, based on quality and quantity of forage, the growth of grasses and brush within the tracts and the onset of summer heat which can make grass less appealing as it dries out. In our experience there have been no significant barriers to the use of goats in our various open spaces.

IHCA actively manages over 150 acres of common areas and open spaces of various landscape types within a 2,200 acre open space/urban village setting. Total landscape maintenance and irrigation costs exceed \$1.5 million per year with a high proportion of that expense going to about eight acres of streetscapes spread across the community in 42 inch bands along some 18 miles of roadways.

Russ Ayers

Landscape Manager
Issaquah Highlands Community Association

Benefits of Goats in Urban Areas

There are many benefits to using goats to remove vegetation in urban areas. Goats are able to travel on steep slopes that people have difficulty working on. This provides an opportunity to clear areas that had previously been unreachable for field crews or equipment.

Goats work in any environment, around needles, fecal matter, large amounts of litter and extremely dense overgrowth. This type of work environment would be a safety issue for people, which is why the areas have remained overgrown until the goat herd came on site.

Goats have cleared overgrowth in areas where there have been high crime rates, have removed vegetation that gave cover to individuals and groups performing illegal activities. Once the overgrowth has been cleared from these locations, they are not attractive places for criminals to be.

Goats are great public relations tools, they never say the wrong thing and everyone smiles and grins when they see them.

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