

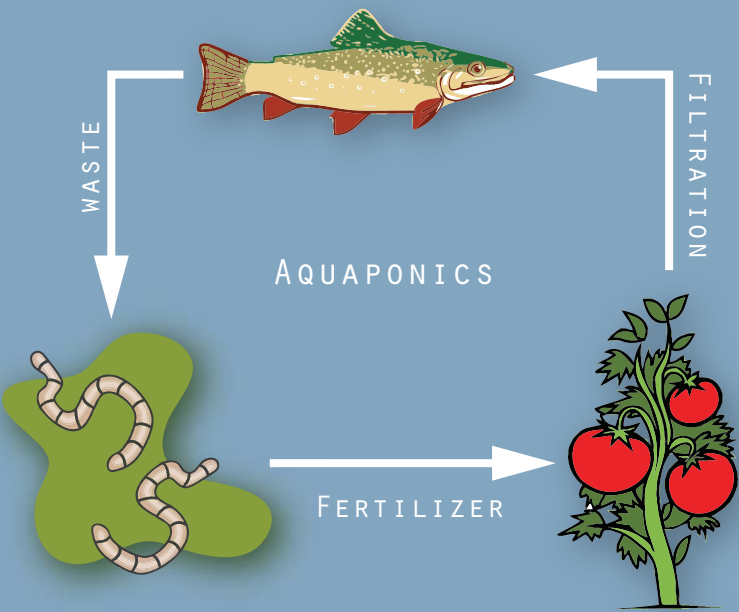
SYMBIOTIC RELATIONSHIPS

“INTERACTION BETWEEN TWO DIFFERENT ORGANISMS LIVING IN CLOSE PHYSICAL ASSOCIATION, TYPICALLY TO THE ADVANTAGE OF BOTH.”

CHICKENS AND DUCKS:
USED FOR PEST CONTROL, AND IN ROTATIONAL GRAZING. DUCKES ARE ESPECIALLY HELPFUL IN PEST CONTROL NEAR WATER.

BETWEEN PLANTS:
PRUNINGS FROM TREES AND SHRUBS TO BE USED AS MULCH FOR CROP BEDS

CROP ROTATION:
HELPS TO MAINTAIN NUTRIENT RICH SOIL

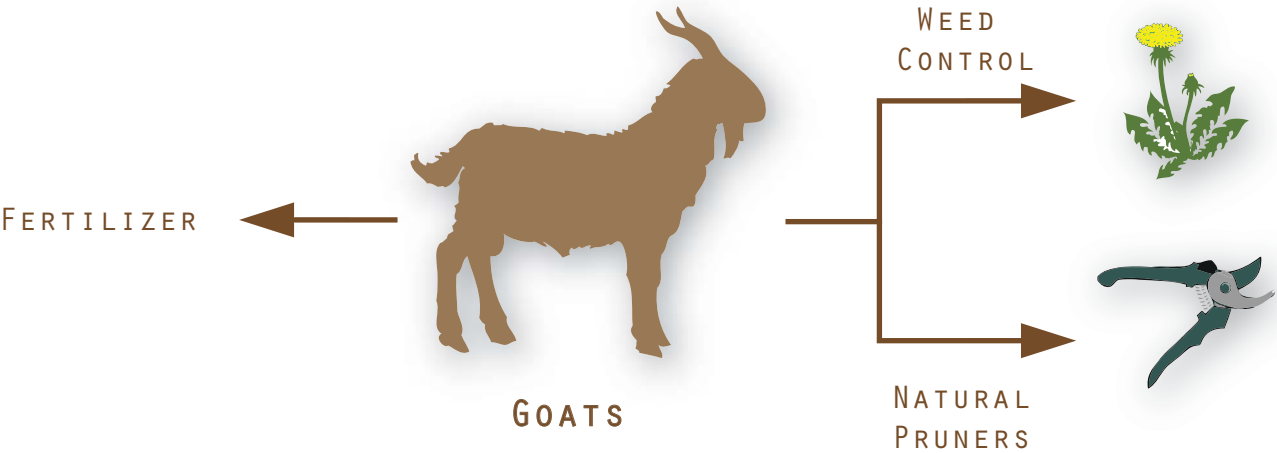
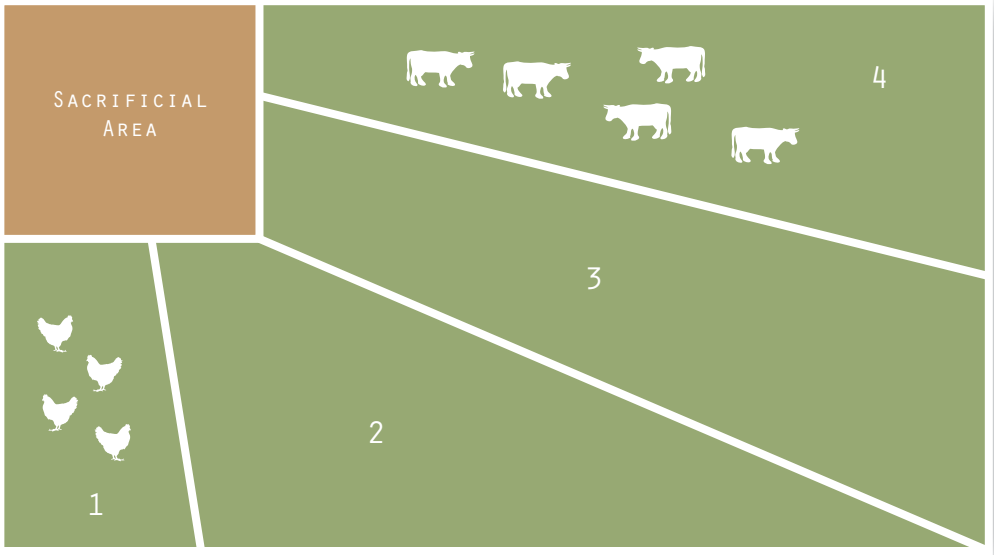


AQUAPONIC FARMING CAN BE ADVANTAGEOUS NOT ONLY BECAUSE OF THE CYCLICAL NATURE, BUT ALSO BECAUSE OF THE FLEXIBILITY IN SIZE/SCALE AND FARM TYPES (I.E. INDOOR, OUTDOOR, OR BOTH)

ROTATIONAL GRAZING:

GRAZING LIVESTOCK SUCH AS CATTLE ARE MOVED SYSTEMATICALLY FROM PASTURE TO PASTURE DAILY WHERE THEY ACT AS NATURAL “MOWERS” FOR THE LAND. THEIR DROPPINGS ACT AS FERTILIZER IN RETURN.

THREE DAYS AFTER THE CATTLE HAVE BEEN IN ONE PASTURE, CHICKENS ARE INTRODUCED TO THAT SAME PASTURE WHERE THEY EAT THE LARVAE AND MICROBES FROM THE CATTLE’S DROPPINGS AND PRODUCE THEIR OWN FERTILIZER AS WELL. THEIR CLAWS HELP TO INTEGRATE THE FERTILIZER INTO THE SOIL.



GOATS ARE NATURAL GRAZERS AS WELL, HOWEVER, THEY ARE NOT A GOOD CHOICE FOR ROTATIONAL GRAZING SINCE THEY RIP THE PLANTS OUT OF THE GROUND RATHER CUTTING IT LIKE CATTLE. BUT...

GOATS CAN BE USED ALTERNATIVELY FOR WEED CONTROL AS WELL AS MAINTAINING AND PRUNING BACK BUSHES AND SHRUBS.

COMPOSTING IS WHERE MANY OPPORTUNITIES CAN ARISE:

BROWN MATERIAL (CARBON) = LEAVES, MASH WASTE FROM BREWERY, PRUNING CLIPPINGS

GREEN MATERIAL (NITROGEN) = MANURE, PLANT MATTER, FOOD SCRAPS

MICROBES & FUNGI = MICROBES FROM THE WATER FROM AQUAPONICS, MUSHROOM GROWING, WORMS

