

## A Checklist toward Success

Use this list as a guide toward your goals in order to create your unique permaculture garden space where plants and animals live in harmony. Highlight your wishes and add to it as needed. Remember it takes time to implement permaculture design principles so start small. Each season you can expand and learn a new concept. Remember to add plants and water for wildlife.

### 1. **Assess your needs and priorities: Define your vision, dreams and goals for the future. Brainstorm and write them down.**

- **Types:** Forest, woodlot, orchard, pasture, meadow, vertical gardening, herb spirals, rooftop gardening, pond and marginal plants, rock garden, Zen garden, hedges, lawn, parking, vegetable garden, legumes, market gardening, grow bags, patio pot planting, deciduous trees and evergreens (nuts, fruit, flowers), shade trees, fruit or flowering bushes and shrubs, flowers, teas, herbs, medicinal plants and vines, berries, and seed plants (perennial, biannual, annual).
- **Gathering areas and activities:** Paths, seating, dining, water features, fire pit, barbecue, swimming pool, drainage lines, water collection, fences, and structures (pergola, decks, raised beds, walls, play structures, terraces, patios, buildings, plant nursery and greenhouse, cold frames), areas for pets and wildlife, and natural or sanctuary areas.
- **Function:** Food production for which seasons, education, demonstration, tourists, commercial or personal production. Systems in place: public or well water, interconnected water systems, energy sources (electrical, wind, sun panels), nursery, green house, mulch pit, woodpile, composting.

### 2. **Assess your site:**

- **Get to know your land, plant hardiness zones and climate:** Cold and warm seasons, hottest month, historic first and last frost days and snow settlement, temperature patterns and average highs and lows.
- **Microclimates:** Sun and shade during the day/seasons, wet and dry areas, rocks, walls, water, concrete, wind covers, and slopes. For large areas, contour maps provide points of elevation on terrain and their steepness, such as slopes, hills, and valleys as compared to sea level (USGS contours in Google Earth provide overlays and YouTube provides instructions).
- **Wind:** Direction, intensity, tides, moisture retention, seasons, natural and needed windbreaks and guilds, fences and walls.
- **Water:** Precipitation - average annual rainfall and wet seasons, runoff, wet patches absorption rates. Water supply sources - well, distribution (pumps, hoses, pipes, drip irrigation). Rainfall collection and storage, overflow (tanks, barrels, ditches, drains, spillways). Natural sources - springs, rivers, streams, ponds, creeks, etc.
- **Documentation of existing growth, paths, buildings, structures, fences, seating, dining, play and pet areas, natural features, water flows, weeds and their potential as food:** List what is growing now including weeds; they will offer insight to soil, water and structural needs and access to the site.
- **Neighbouring land:** Do buildings, structures, fences, trees, plants, manicured or natural areas. Consider sun, shade, slopes and runoff, and water flows.
- **Wildlife and pets:** Pollinator insects, butterflies, moths, birds, bats, beetles, bees, potential rodents, beneficial wildlife and pests.
- **Local zoning laws and bylaws, homeowner's associations, land use restrictions, permits:** Agricultural, urban, capacity for planting, buildings and structures, sewer, electrical, fire pits, pools, campers and RVs.

### 3. Plan and draw a design (Begin with patterns and then details and use slow and small solutions):

- **Set a budget:** Seasonal, annual, over a span of years. Write down your immediate goals and how you wish to implement them.
- **Become a systems thinker:** Build resiliency into them. Think of backups and reducing waste and only using what is needed. Plan for disasters (drought, fire, floods, winds, temperature hikes and storms).
- **Draw your design:** Existing buildings, structures, parking area, garage, shed, water features, trees and plants that will stay. Decide the shape of your garden and paths then add the desired elements of your design. Add new structures: buildings (shed, nursery, greenhouse, cold frames), fences, walls, buildings, decks and patios, pool, play structures, pergola, etc. Add waterways, systems and features (pond, birdbath, fountain, ditches).
- **Define areas:** Forest and woodlot, orchard, pasture, meadow, rock garden, Zen garden, vegetable garden, food forests and guilds, gathering areas and activities, seating dining, fire pit, pets, wildlife watering areas and food, natural areas, composting and storage of materials and supplies.
- **List desired plantings:** Plan locations for trees, shrubs and perennial plantings first then intersperse with annuals and flowers based on companion planting, incompatible plantings, plant protectors and miner plants with deep taproots. Plan according to adult size of plantations with thought about shade and future size. Plant shrubs and annuals beneath trees until they reach maturity.

### 4. Sourcing materials and suppliers for your needs:

- **Plantings:** Buying seeds in bulk with friends and family is cost effective. Plan on propagating plants and collecting your own seeds for the upcoming year. Plants, bushes and trees: Consult seed catalogues, home improvement centers, nurseries, ask for donations from friends when they are thinning their perennials. Choose cuttings, roots, seedlings, and seeds based on your current soil conditions and knowing your land. When purchasing plants, examine them carefully for rotted stems, insects, and dead spots, as well as abundant, healthy, white firm roots. For building raised or low beds: buy rustic untreated lumber, use pallets, chicken wire, straw bales, wine bottles, bricks, rocks, tires, old swimming pool, tub, reclaimed wood, etc.
- **Mulch:** Biannually, always protect the soil from erosion, high temperatures, wind, weeds, and compaction using mulch. Disturbing the soil is not necessary unless you are digging a hole to spot plant. By avoiding tillage the organic matter and carbon remains in the soil. Mulch and the plants you grow add organic material to the soil and supports the soil's ecosystem while supporting living organisms that thrive there. By using the chop and drop technique and returning plant waste to your garden as mulch, the underground world is left undisturbed. If your land cannot provide the following items locate and purchase them as needed: Logs, branches, twigs, hard and soft wood chips, fully composted materials and compost tea, mushroom compost (Consider making your own using food scraps, clippings, paper, cardboard, etc.), straw, seaweed, humus, pine needles, fallen leaves and leaf mulch, pine straw, bark mulch, old hay.

### 5. Planting:

- **Choose plants and their sites appropriately:** Research your plants and their care. Think polyculture and plant diversity as opposed to monoculture. Native plants and shrubs thrive in our environment and are low maintenance by requiring less watering and pruning. Perennial plants come back year after year. Use the STUN method (Sheer Total Utter Neglect). Containers need to be watered more frequently. Choose plantings for year round interest and food for wildlife. Read seed planting instructions (depth, spacing, soil, hours of sunlight needed, stratification needs). Start seedlings and cuttings indoors in early spring and label them. Harden off by placing them outside during warm hours a little at a time before planting

outdoors to acclimatize them to their new location. Many seeds can be direct sowed into the garden after the last frost. Plant hardy vegetation first. Plant tall plants on the north side of the garden so they do not block out the sun for smaller plants. When planting: Soak roots prior to planting outdoors, gently tease root bound plants, dig hole deep enough for the root system to be completely covered. Remove air pockets around the roots. Cover garden plants if there is a risk of frost in the forecast (\*cloches, cold frames, old blanket or tarp) and water very early the next morning. Place mulch around plants around four to six inches deep for best results.

- **Winter sowing:** For hardier plants with a higher survival rate people are sowing hardy seeds in plastic jugs and putting them outside in the dead of winter. Using clean transparent plastic jugs that have holes poked out of the bottom and have been cut in half to add moist soil and seeds then taped back together is a simple method for growing plants. If the weather is too dry, spraying inside the jug with water may be necessary. Its benefits include saving space and time, no dampening off, less disease, less difficulty hardening off seedlings, provided insulation, natural stratification, and less equipment (grow lights, heat mats). Come springtime, plants grow naturally when the weather is right. Once the seedlings are big enough for sunlight or to add water, the tape is removed for hardening off and closed again until they are hardened off. The only thing to remember is to label the containers. Less hardy plants can be sown in the same manner once the risk of frost has passed.

#### 6. Maintenance, monitoring and adaptations:

- **Basic care:** Creatively use and respond to changes in your garden (succession sowing when some expire, water early or late evening and never in hot temperatures). Starting small means that if we make mistakes we will have minimal consequences. Add artificial supports as needed. Add compost to the top of the soil as needed to build healthy soil. Water deeply around the base of the plants, limit moisture on the plants. Be careful of overwatering and under watering. Check for insect damage, disease, rot mold, powdery mildew, viruses and bad bacteria. Remove disease ridden dead leaves and debris. Avoid overcrowding plants. Prune damaged limbs at the right time for trees and shrubs and thinning out perennial plants improves airflow. Take notes on the plantings that are thriving and those that need constant care and attention.
- **Soil amendment in the spring:** Add ¼ inch of diverse organic matter such as compost or bio char, to speed up the formation of humus, and to enrich poor soil over time. Restrict foot traffic by using permanent beds and paths for less compaction and a diversity of mulches.
- **New bed and fall preparation for the following spring:** Sheet mulching or lasagna gardening mimics natural soil building processes found in forests for healthy, productive, low maintenance gardening. This technique builds soil in just a few years by combining weed removal and long-term mulching. Layers include a weed barrier such as cardboard or layers of paper, compost materials that will decompose over time, and a layer of thick mulch to discourage weeds. Each layer is thoroughly watered down. Hugelkultur is a similar method using logs at the base of a raised bed.

#### 7. Food preservation and sharing:

Our ancestor knew the benefits of food and beverage storage and preservation. The ancient art of making kombucha, along with ginger bug and water kefir are gaining popularity. Many methods are making a comeback such as fermentation, salting and canning, making jams, pickles, freezing, and dehydration. These methods make wonderful gifts and delicious additions to family meals. One principle of permaculture is to share abundance with others. By giving back to nature when composting to enrich soil and by caring for wildlife and our pollinators and through food donations.

**8. Add new permaculture design principles over time:**

Add energy-saving green initiatives such as grey water reclamation systems, design strategies for extreme weather and climate change, regenerative solutions and strategies, add renewable resource system, swales and keylines, water plant culture, controlling weeds without chemicals, water management, earthworks such as mounds terraces, benching, and banks. Remember to add small, slow, yet deliberate principles and solutions over time related to earth care, people care and future care. Accept feedback and apply self-regulation to manage your progress.

**9. Learning and references:**

Restoration agriculture, beneficial weeds and foraging, plant guilds, food forests, companion planting and incompatibility versus protectors, plants that repel pests, plants to amend soil-alkalinity versus acidity, succession sowing, permaculture garden shapes and designs (circles, spirals, keyhole pattern, mandala gardens, composting, how to build health soil naturally, how to calculate yield requirements of produce for your family.

Books

*Edible Plants of Atlantic Canada: Field Guide* by Peter J. Scott

*Creating a Forest Garden Working with Nature to Grow Edible Crops* by Martin Crawford

*Permaculture A Designer Manual* by Bill Mollison

*Designing and Maintaining Your Edible Landscape Naturally* by Robert Kourik

*The Pollinator Victory Garden: win the war on Pollinator decline with Ecological Gardening: Attract and Support Bees, Beetles, Butterflies, Bats, and Other Pollinators* by Kim Eierman