Leytonstone Allotment Holders Association

Guidance sheet

Our site and water….

Roding Farm Allotment site lies on former water meadows beside the river Roding.
The course of the river was altered in the early 20th Century but until the construction of the M11 link road a small branch of the Roding still flowed along the eastern side of the site.
After the river was moved entirely to make way for the road the old riverbed dried up, but the water table at site remains high.
It is also thought that at least one underground stream that fed the Roding may still run under the site.

This means that in times of very heavy rainfall or during winter, parts of the site may experience some standing water. When this happens, how long the water remains depends on the weather, but in very wet winters the committee will pump the main drainage ditch to help nature along.

There is also the possibility (which thankfully hasn't happened to any extent since 2009) that were the Roding to flood, so would parts of our site.

How to reduce the impact of any waterlogging

Improve the rate at which rain can drain away into your ground.

- Water will flow much more easily through worked soil than through compacted or undug soil, so ensure that as much area as possible is cleared and dug over in time for winter.
- Add organic materials such as manure and compost to the soil to creates a more open soil structure which makes it easier for water to flow through. Liming ground also helps to break up clay particles and makes it easier for water to move through the soil.
- Do not cover areas with impermeable or water retaining sheet materials - these decrease the rate at which rain can drain away into the soil and stop wind and sun drying the ground beneath.

Raise your soil level so that what water there is will be further down in the ground.

- It is a rule of thumb that If when you look at the edge between the side path of your plot and the soil you can see a noticeable step down, then your soil is more likely to be waterlogged in winter. Regular addition of organic materials to raise the soil level will help keep the plot drier and give worms and suchlike drier soil to move up into.
- Alternatively, consider installing raised beds on wetter parts of the plot. A bed at least 8 inches high is ideal for keeping most plants safe from the effects of waterlogging.

Direct water to places where it will do less harm.

- If you have a drainage ditch beside your plot, keep it clear of weeds and vegetation, and make sure it is at least a spades width deep and wide.
- if there is not a main ditch near the plot to connect to, digging temporary free-standing trenches around the edge of your beds for winter will be beneficial. Excess water will be able to collect in these areas, leaving the higher centres of the bed drier. The trenches can be backfilled in spring to level the beds off ready for planting again.

If the worst happens : tips for repairing some effects of waterlogging

- Most plants can survive a few days being totally immersed under water but the roots need oxygen to breathe and will die if left too long in cold, wet, airless soil. The weight of the water will compact the soil but wait until the soil begins to dry out before carrying out remedial digging. Avoid treading on the soil and work from boards laid over the ground.
- Shallow rooted plants such as fruit bushes may become unstable in waterlogged soil and in future be vulnerable to drought in dry weather and root diseases. Support any suspect plants and mulch around the roots when the soil dries out. Consider staking until roots re-establish, or replace with new plants.
- Soil that has spent days underwater suffers loss of nitrogen and a build-up of methane. The condition of the soil may be damaged but there is a lot that can be done to rebuild the balance. Allow soil to drain completely and when it is dry enough dig it over and add as much organic material as possible. The top of the soil may be covered with a dark silty or green layer; if so, this can be dug back in. Waterlogging will have compacted the soil too, so even rough digging will help recovery by opening up the soil and reintroducing air.
- If possible check the soil p.H when it has dried out and dress with garden lime if it has become too acidic. Get in a stock of pelleted chicken manure and liquid seaweed for use in the following growing season, these will also help to rebuild soil structure.