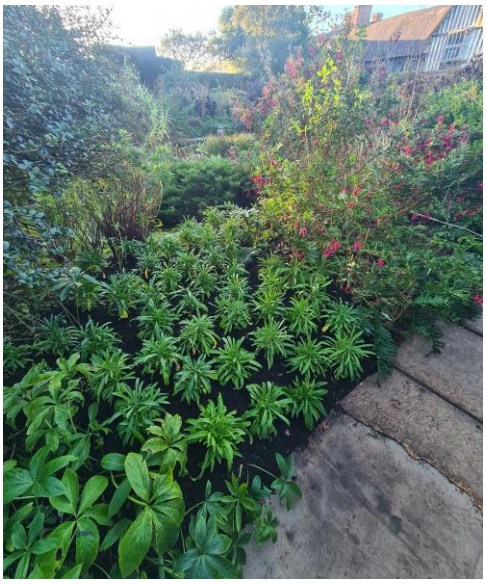
Monthly Report November 2023 – Ernie Weller

November:

Throughout November we have been busy pricking out seedlings, filling all the cold frames with module trays of hardy annuals for next year's display. We also started the border work and bulb planting, making good progress throughout the garden. In small groups, we all started by tackling the borders/beds and bedding pockets in the barn garden with the Bulbs Symposium group, which involved tying up plants to allow access, laying out and planting bulbs directly into dense perennial areas and removing the late-season bedding of cannas and dahlias and replacing with a pocket of bulbs and host plants such as Digitalis, Erysimum or Hesperis. Will and I were tasked with the bed that runs parallel to the staff mess room.



- Erysimum cheiri 'Vulcan' with Tulip 'Ballerina' planted underneath in a Barn Garden bedding pocket -

For our first bedding pocket, we chose Erysimum cheiri 'Vulcan', and for the second, Hesperis matronalis. The Erysimum will flower together with the tulip, while the Hesperis will act as ground cover of sorts for the tulips to flower above, and then push up its own flowers after the tulips have finished – using a biennial like this will provide a longer season of interest with less input, but can reduce the show in the spring, so it's important to keep a balance of early and late flowering host plants throughout the site. The whole bed has Tulip Ballerina running through it which we decided while it was in flower last spring to increase, so we added 200 more bulbs in total. Normally the bedding pockets would have a different tulip to create a distinct block of colour to divide the bed up, however after discussing with Fergus we decided to keep T. Ballerina through everything and increase the density of it in the pockets, as we hope the Erysimum will create enough of a change in colour/shape while maintaining the flow with the tulip through the whole area. I am really looking forward to the combination of Erysimum 'Vulcan' and Tulip 'Ballerina' as the morning sun should hopefully shine through the flowers as we arrive each day and during our morning tea break, where we sit just next to it. T. 'Ballerina' is my all-time favourite tulip, as along with its amazing bold red/orange colour and lily shape, it has a sweet citrus scent.
Another bedding area I'm excited to see the results of is the double beds in the High Garden, where Ben Jones, Naciim and I have experimented by using the tulip 'Amber Glow' with E. 'Vulcan' and Honesty. 'Amber Glow' was only trialled once here last year in a pot, and is a very similar colour to the Erysimum, but with yellow fading up from the base of the flower. We are hoping that the tulip is just the right height to see the yellow as if it is too short the colour may just merge with the wallflower.

By this time of the year, the cold frames are all full of autumn-sown hardy plants, mostly annuals, all growing slowly over winter for next year's display. It all starts with Dixter's seed sowing &

germinating process, which this year we left a little later than usual, sowing a large proportion of the seed towards the end of October and into the start of November. We sow seed densely into 4-inch square pots as this allows us to make good use of space and increase the range of plants we can grow within a fairly limited amount of space. After sowing, the pots are watered with a fine rose facing upwards in a sweeping motion to stop pooling on the surface and are then moved into the Double Frames, which are sunk cold frames with two layers of lites (glass). This environment allows for a more stable temperature required for germination, without the need for added heat using electricity. The double layer of glass traps the warmth overnight reducing the fluctuation in temperature that would slow down germination, however, once the seeds start to germinate they must be moved out soon to stop them from stretching as the glass layers reduce the amount of light that gets through. The seedlings are moved into The Pit, a sunken greenhouse, which has sufficient light levels and temperature to grow the seedlings on until they're ready to be pricked out. Generally, we prick out at the cotyledon stage, before the true leaves start to grow (especially important with poppies). The density of the seed sowing can depend on a few factors, one of these being how soon a plant gets pricked out, as the sooner they are moved on, the less space they need in the original pot.

- 03/11/23: Filling up the double frames after a day of seed sowing -

- 03/11/23: Silene 'Blue Angel' stretching towards the light, after staying in the double frames too long -

14/11/23

20/11/23

- Seedlings growing on in 'The Pit' greenhouse -

Depending on the plant, we prick out our seedlings into module trays or ‘small blacks’ (7cm square pots) by gently holding a leaf while using a dibber to carefully remove each one without damaging the root. The soil mix is a fairly gritty, loam-based mix which has the least amount of fertiliser out of the 3 mixes at Dixter. At this stage the seedlings need very little fertiliser for growth, and if there were more you run the risk of exosmosis occurring, resulting in plasmolysed cells, where the water is drawn out of the plant into the more concentrated area around it. After pricking out the seedlings are watered in with the watering can rose facing down to help settle the soil around the roots, reducing any big air pockets and avoiding any hung roots, which happens when the hole dibbed for a seedling is deeper than its root leaving a gap below. The module trays/pots are then moved into a cold frame where the atmosphere will be kept ‘close’ by keeping the lites on to trap humidity and heat, encouraging initial growth.

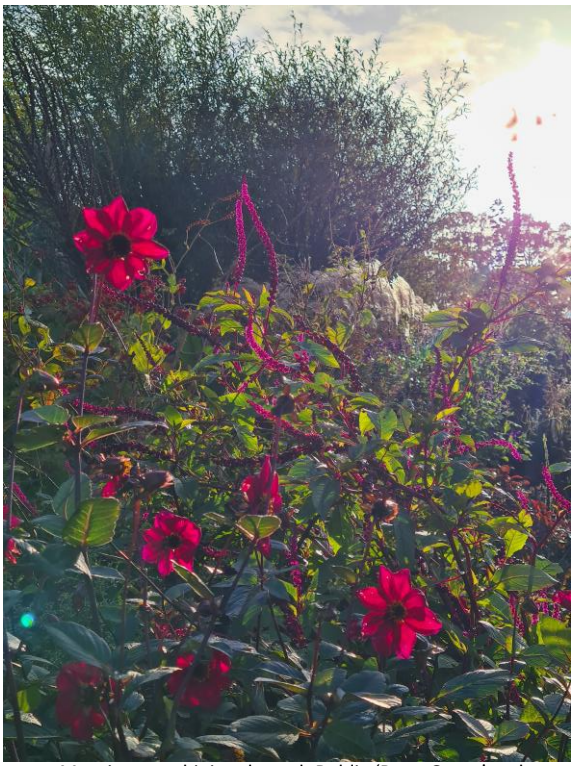
- A module tray of poppies after being pricked out -

- Cold frames full of seedlings -

Managing the cold frames at this time of year involves balancing temperature, light, pests, moisture and gaseous exchange. The more I learn about this process, the more I realise it is less of an exact science and is really about adapting to the weather and being observant. Each day/month/year is different, and you need to be ready to adjust. As a general rule, once the seedlings show signs of growth, ventilation can be increased during the warmer days, ideally late morning/midday, or when the air temperature has warmed, but still gives the frames time after closing to capture enough heat before the end of the day. Sometimes there just aren't enough warm days but the air still needs changing inside the frames, so we would open them for around 15-30mins just to change the air but reduce the amount of time the seedlings are exposed to the harsher outside conditions. When to water the seedlings is again about being observant, checking each frame regularly and keeping an eye on the forecast. We try to avoid watering before a period of cold weather otherwise it could cause the plant's growth to slow and make the soil sit wet for longer increasing the risk of rotting. All the frames are full up with seedlings, and normally the aim now would be to keep them cooler, to slow their growth right down so that we don't need to pot them on too soon, however, as we sowed them later this year they need a little extra warmth to keep them growing so we are keeping them 'snug' by reducing the amount of ventilation. Rob Flack looked after the cold frames last year and explained to me how the management of the frames changes through the year, like a conveyor belt, as one thing is moved out of the frame, something else is moved in. I've enjoyed learning this autumn seed sowing/growing process, and I'm looking forward to seeing how else the cold frames can be managed to garden in this way and maximise flowering in each season, providing both visual and ecological benefits.

- Ernie Weller.

- A view of the Barn Garden -



- Morning sun shining through Dahlia 'Dove Grove' and Phytolacca icosandra -