Basic Process Map

"MACRO" VIEW

Fly lands in trap → Trap closes → Plant eats fly → Trap opens
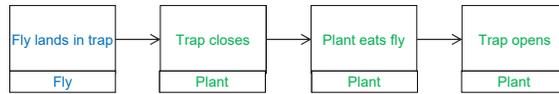
Fly | Plant | Plant | Plant

AVOIDING PROCEDURE HORRORS IN YOUR LITTLE SHOP

Process Map of a Venus Flytrap

Process maps are very useful tools. Converting a written job procedure or word of mouth instructions into a picture or map can illuminate a complicated process and make it seem quite simple. Asking *how* something happens or *how* something gets done can provide valuable detail that can be useful for anyone attempting that task now and in the future. The benefit can include preventing or minimizing incidents that often recur from lack of clarity in a procedure.

This process map, while detailed, could surely be broken down into further detail by a entomologist who deeply understands the intricate workings of a Venus Flytrap. Fortunately for a baby Venus Flytrap, this process map is coded directly into its DNA, so it doesn't have to rely on anything to know what to do. Unfortunately for us, work related tasks are rarely so instinctual. We rely on job procedures, process maps and word of mouth to learn the best, safest way to get the job done. Ensuring consistency with that transfer of information is key to making sure that incidents and problems are avoided. Problems that result from poorly defined procedures or work processes can go by many names: procedure not followed, human error, etc. At the end of the day, the roots (pun intended) of many of these problems are poorly articulated or poorly communicated work processes. The simple tool of a process map can help minimize these problems by making the steps of the process clear and easy to understand.
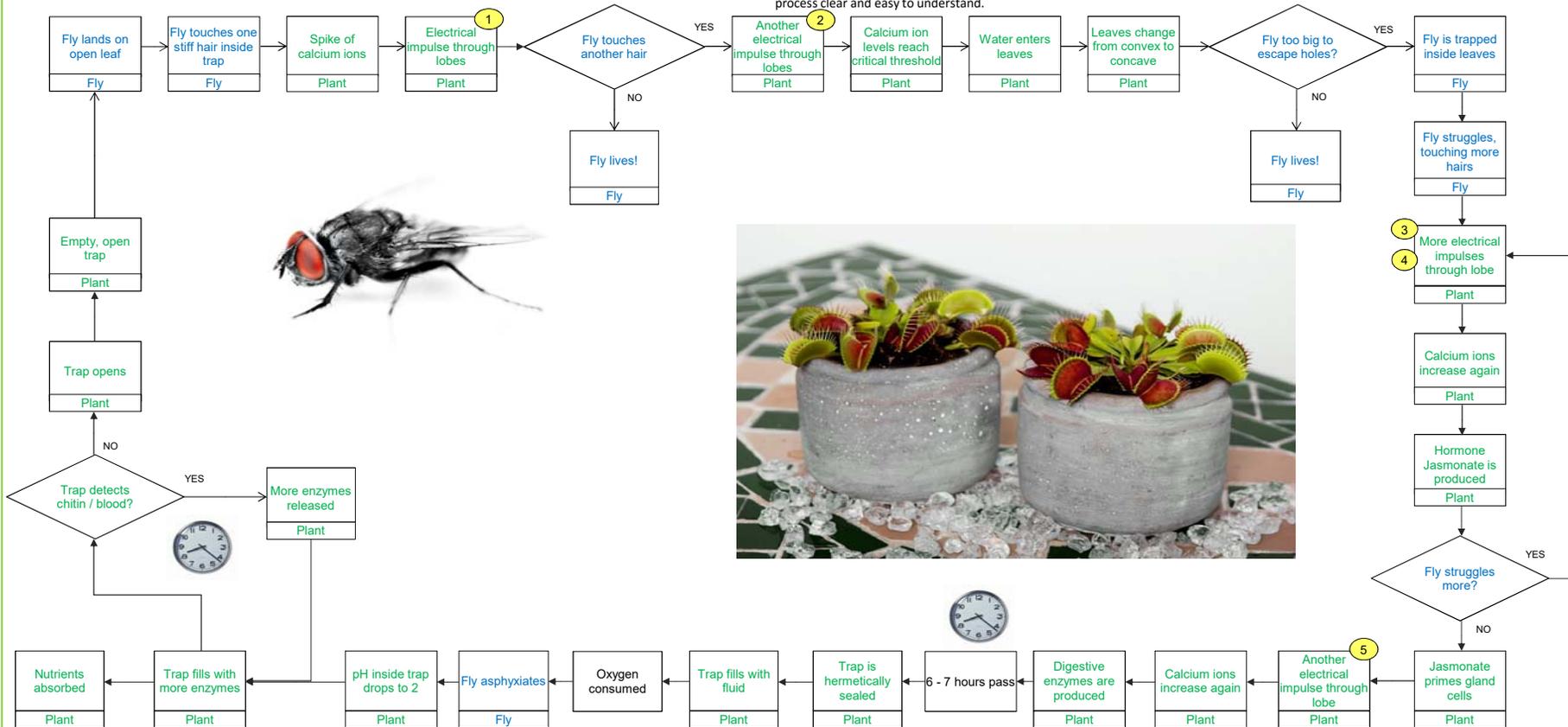
"MICRO" VIEW

Detailed Process Map

① ② ③ ④ ⑤

Electrical impulses: all of the digestion happens with the help of 5 electrical impulses at various stages in the process

Fly lands on open leaf (Fly) → Fly touches one stiff hair inside trap (Fly) → Spike of calcium ions (Plant) → ① Electrical impulse through lobes (Plant) → Fly touches another hair ?

Fly touches another hair — YES → ② Another electrical impulse through lobes (Plant) → Calcium ion levels reach critical threshold (Plant) → Water enters leaves (Plant) → Leaves change from convex to concave (Plant) → Fly too big to escape holes?

Fly touches another hair — NO → Fly lives! (Fly)

Fly too big to escape holes? — YES → Fly is trapped inside leaves (Fly) → Fly struggles, touching more hairs (Fly) → ③ ④ More electrical impulses through lobe (Plant) → Calcium ions increase again (Plant) → Hormone Jasmonate is produced (Plant) → Fly struggles more?

Fly too big to escape holes? — NO → Fly lives! (Fly)

Fly struggles more? — YES → (loop back to More electrical impulses through lobe)

Fly struggles more? — NO → Jasmonate primes gland cells (Plant) → ⑤ Another electrical impulse through lobe (Plant) → Calcium ions increase again (Plant) → Digestive enzymes are produced (Plant) → 6 - 7 hours pass → Trap is hermetically sealed (Plant) → Trap fills with fluid (Plant) → Oxygen consumed → Fly asphyxiates (Fly) → pH inside trap drops to 2 (Plant) → Trap fills with more enzymes (Plant) → Nutrients absorbed (Plant)

Trap detects chitin / blood?

Trap detects chitin / blood? — YES → More enzymes released (Plant) → (loop)

Trap detects chitin / blood? — NO → Trap opens (Plant) → Empty, open trap (Plant) → (back to Fly lands on open leaf)