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When planting seeds for agricultural purposes, there is usually a range as to what depth the seed should be planted and will it affect emergence. The objective of this study was to determine if the depth a seed is planted will have an impact on the emergence time, shoot length, root length, and subsoil shoot length. Corn, Lima, Wheat, and Rapeseeds were planted on the surface, at the low and high end of their optimum depth, and double the optimum depth. The seeds were kept moist and under 40-watt fluorescence F4T12 plant light. After the seed emerged, the time was recorded and the shoots were measured for 7 days. They were dug up from the soil and the sub-soil shoot was measured as well as the roots. I hypothesized that seed depth will have a direct correlation to emergence time as well as height of the shoots. Based on the results, there was a trend between the time it took the seeds to emerged and the depth the seeds were planted indicating it took longer for seeds to emerge when planted at deeper depths. There was a direct correlation to the depth of seed and the shoot height for each seed type. Some seeds did better than others at each depth. There was no correlation between root length and seed depth. Based on this data we can accept the hypothesis that that seed depth will have a direct correlation to emergence time as well as the height of the shoots.