

Repository 1

L.japonicus Growth Documentation

Sample Key

Each sample ID (e.g., O1-T1-R1) follows this structure:

- O#: substrate type (e.g., Martian soil simulant MMS-2 = 1, Quartz sand = 2)
- T#: Treatment (e.g., Inoculated without *Mesorhizobium* = 1, Inoculated with *Mesorhizobium* =2)
- R#: Replicate number (e.g., 1-8 for MMS-2 treatments, 1-6 for sand treatments)

Images are taken over time to show developmental progression of *Lotus japonicus* plants grown under different treatments. Notable observations such as leaf yellowing, root elongation, or nodule development should be recorded as comments or annotations where relevant.

Lay-out date when pictures were taken.

25 april (day 14)	28 april (day 17)	30 april (day 19)
2 May (day 21)	6 May (day 25)	8 may (day 27)



Figure 1. O1-T1-R1: Developmental progression of *L.japonicus* on MMS-2 not inoculated with *Mesorhizobium sp.* *LjRoot218* sample replicate 1. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison

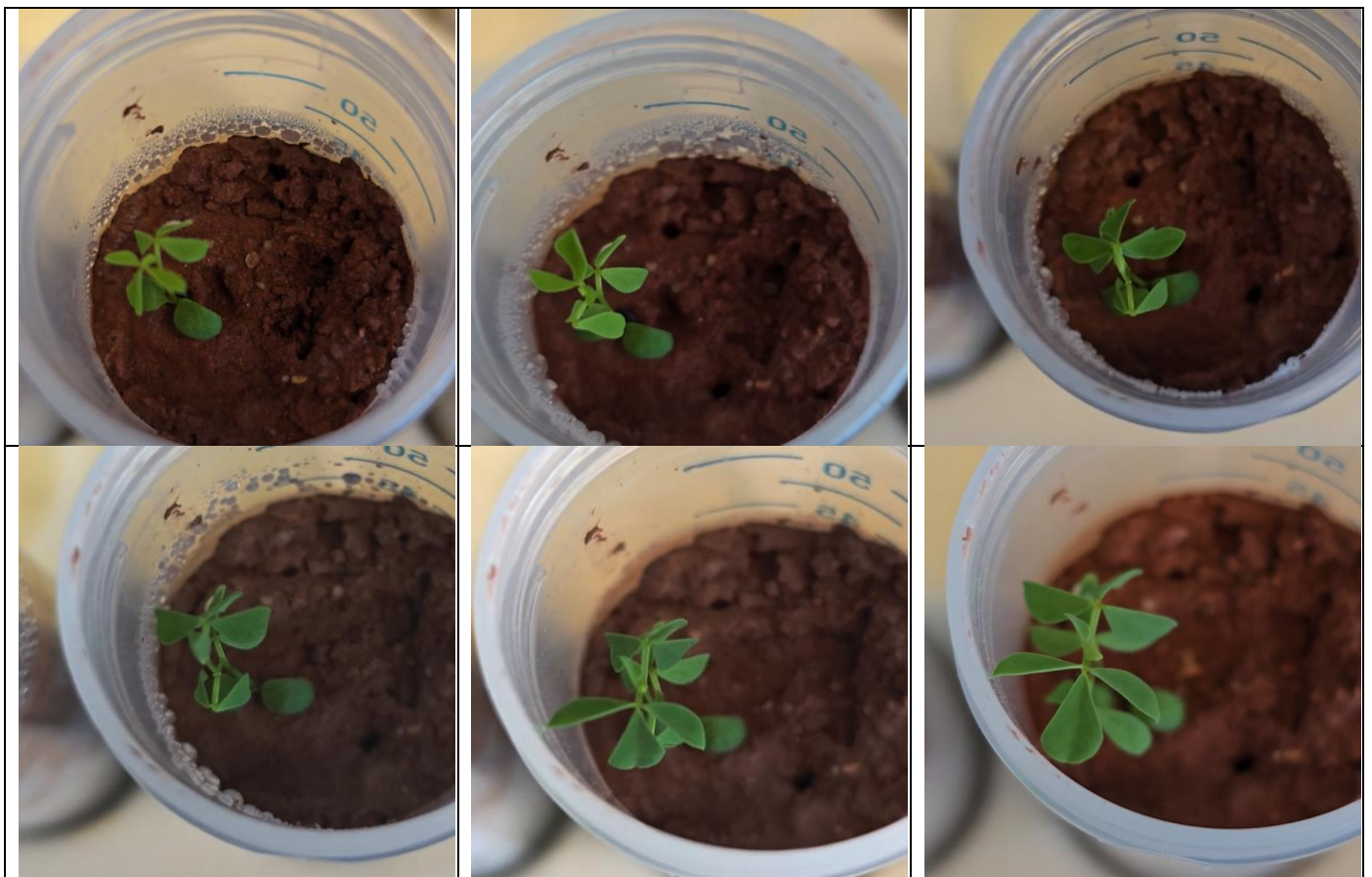


Figure 2. O1-T1-R2: Developmental progression of *L.japonicus* on MMS-2 not inoculated with *Mesorhizobium sp.* *LjRoot218* sample replicate 2. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison



Figure 3. O1-T1-R3: Developmental progression of *L.japonicus* on MMS-2 not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 3. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison

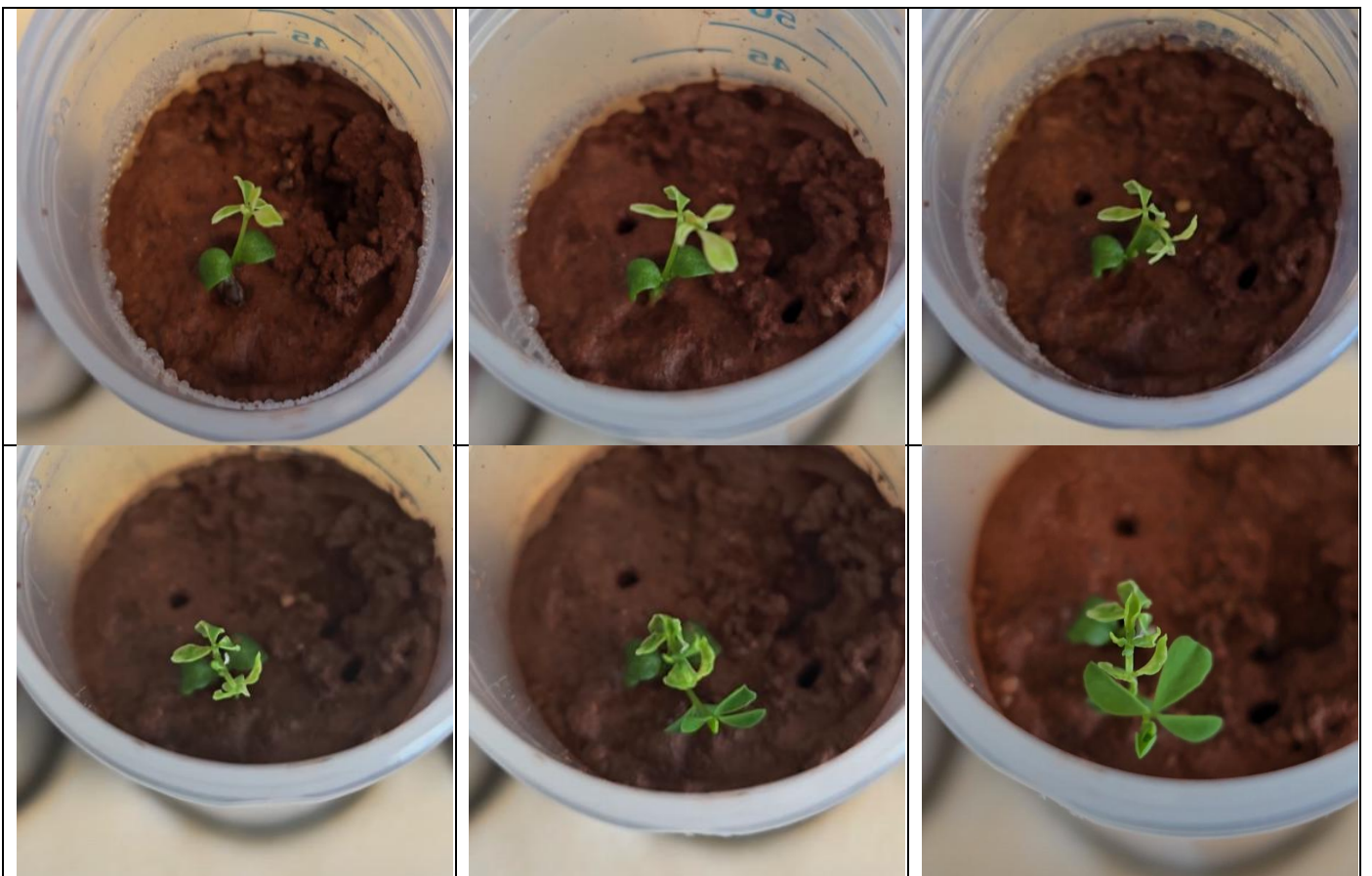


Figure 4. O1-T1-R4: Developmental progression of *L.japonicus* on MMS-2 not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 4. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison



Figure 5. O1-T1-R5: Developmental progression of *L.japonicus* on MMS-2 not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 5. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparisson

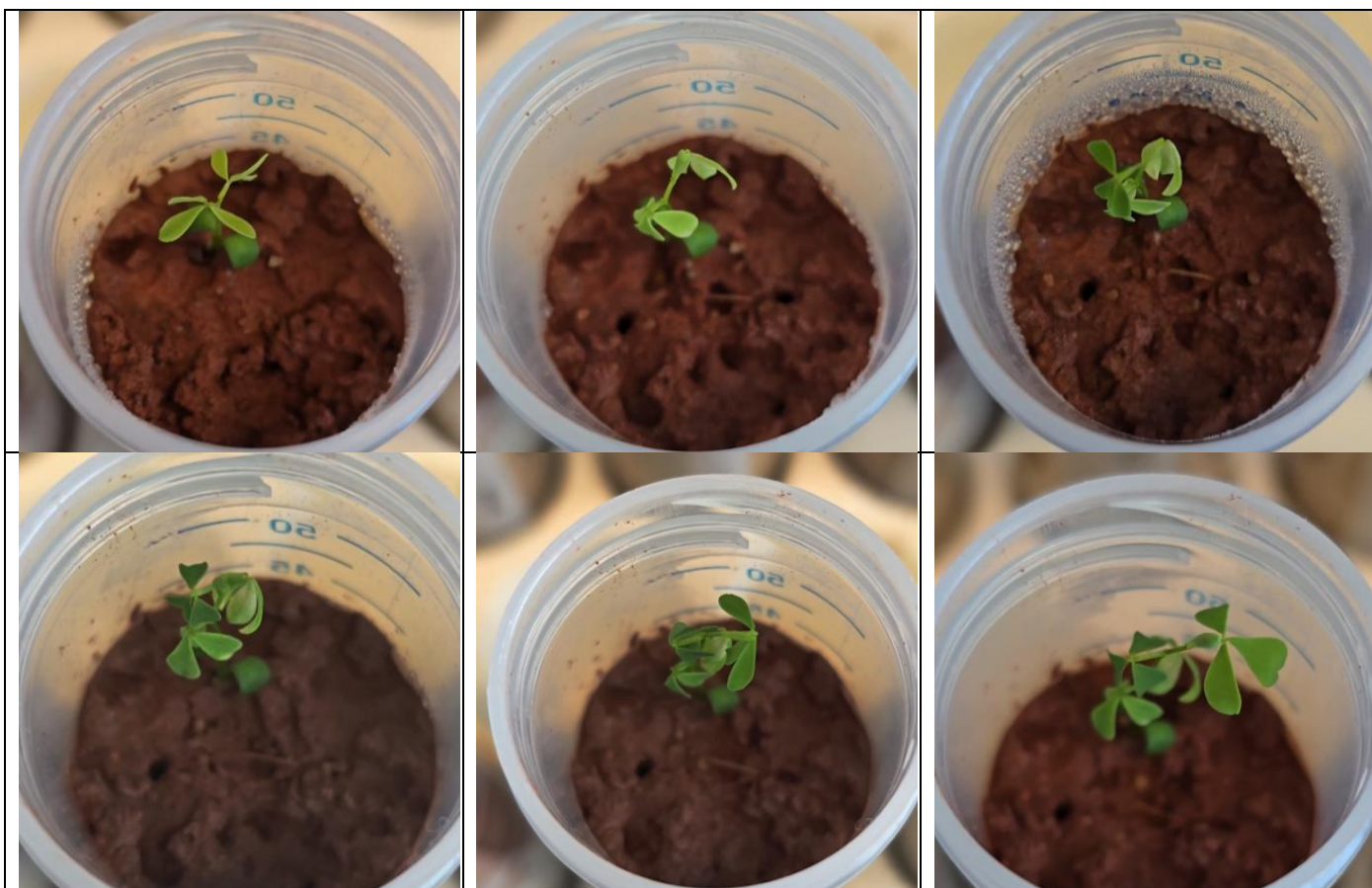


Figure 6. O1-T1-R6: Developmental progression of *L.japonicus* on MMS-2 not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 6. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparisson



Figure 7. O1-T1-R7: Developmental progression of *L.japonicus* on MMS-2 not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 7. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparisson

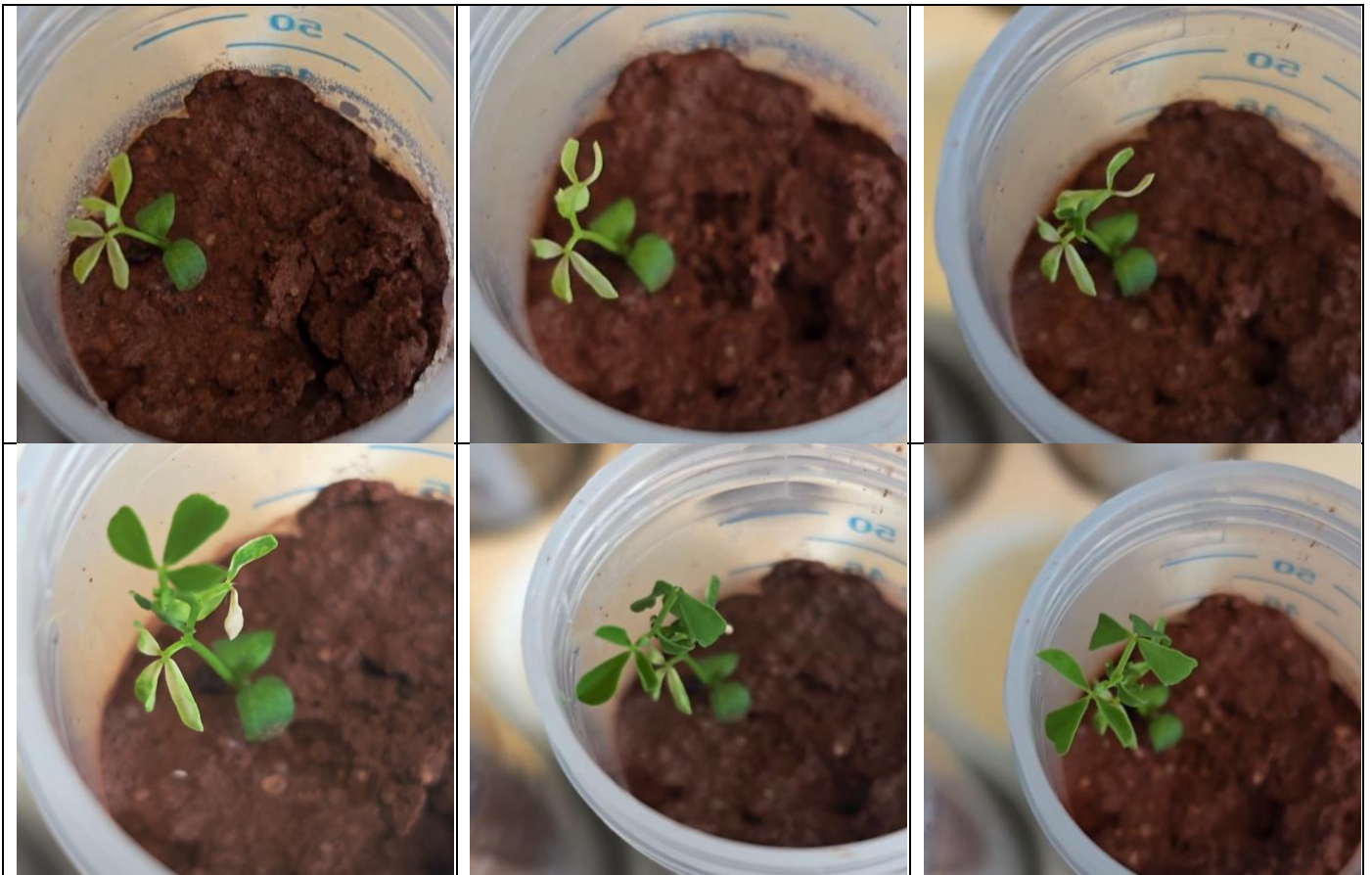


Figure 8. O1-T1-R8: Developmental progression of *L.japonicus* on MMS-2 not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 8. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparisson

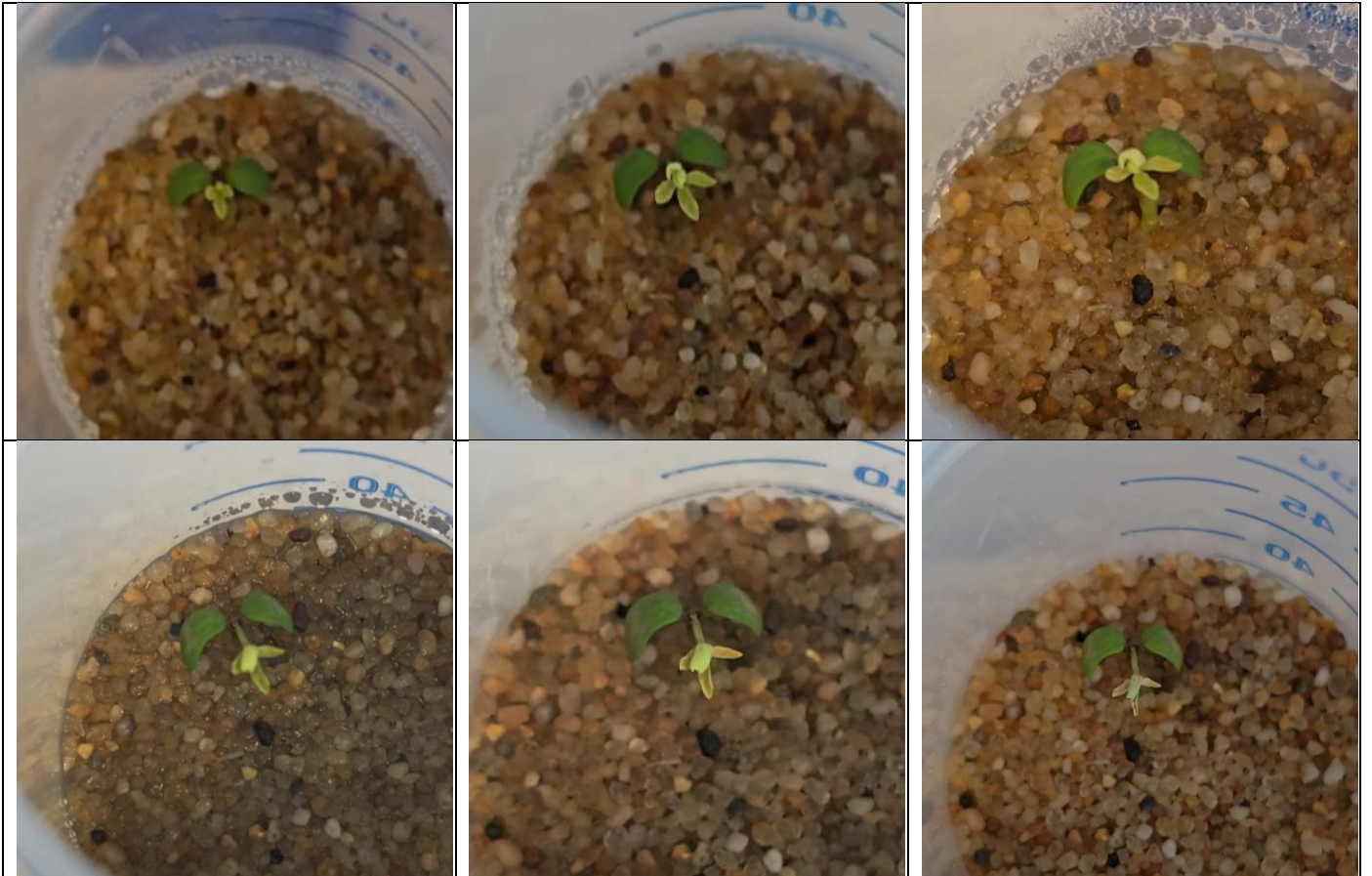


Figure 9. O1-T2-R1: Developmental progression of *L.japonicus* on sand not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 1. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparisson

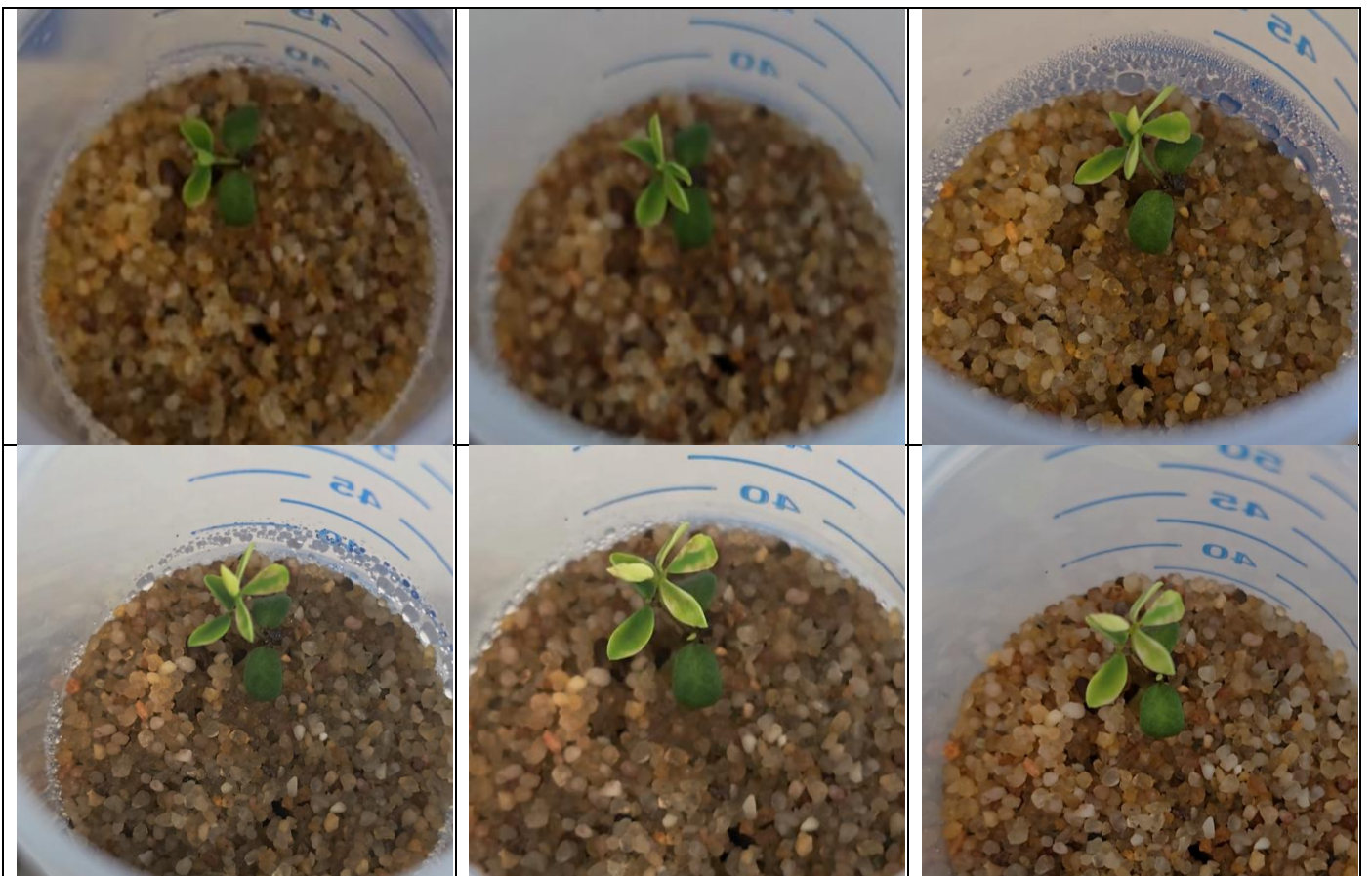


Figure 10. O1-T2-R2: Developmental progression of *L.japonicus* on sand not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 2. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparisson

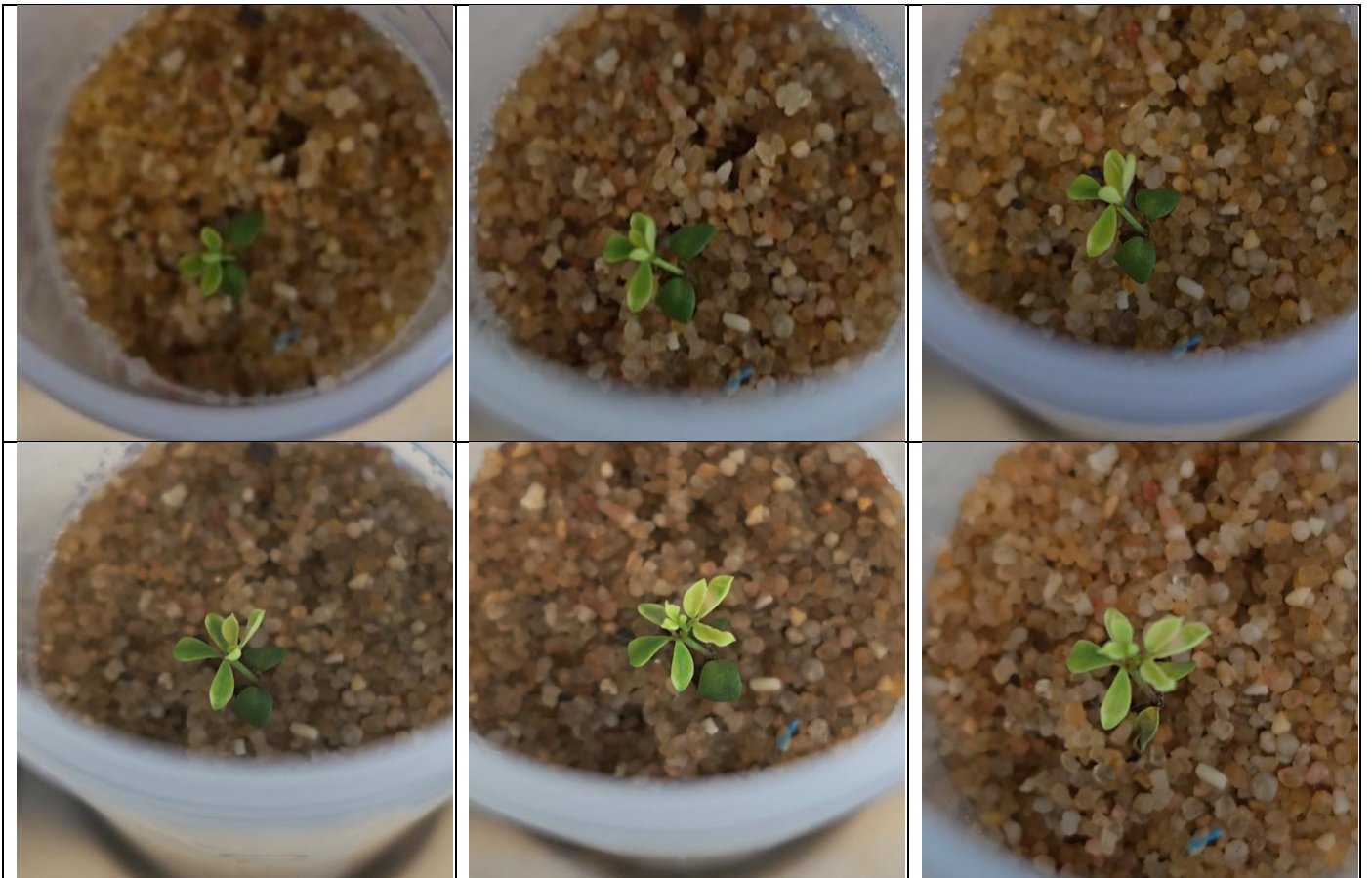


Figure 11. O1-T2-R3: Developmental progression of *L. japonicus* on sand not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 3. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison

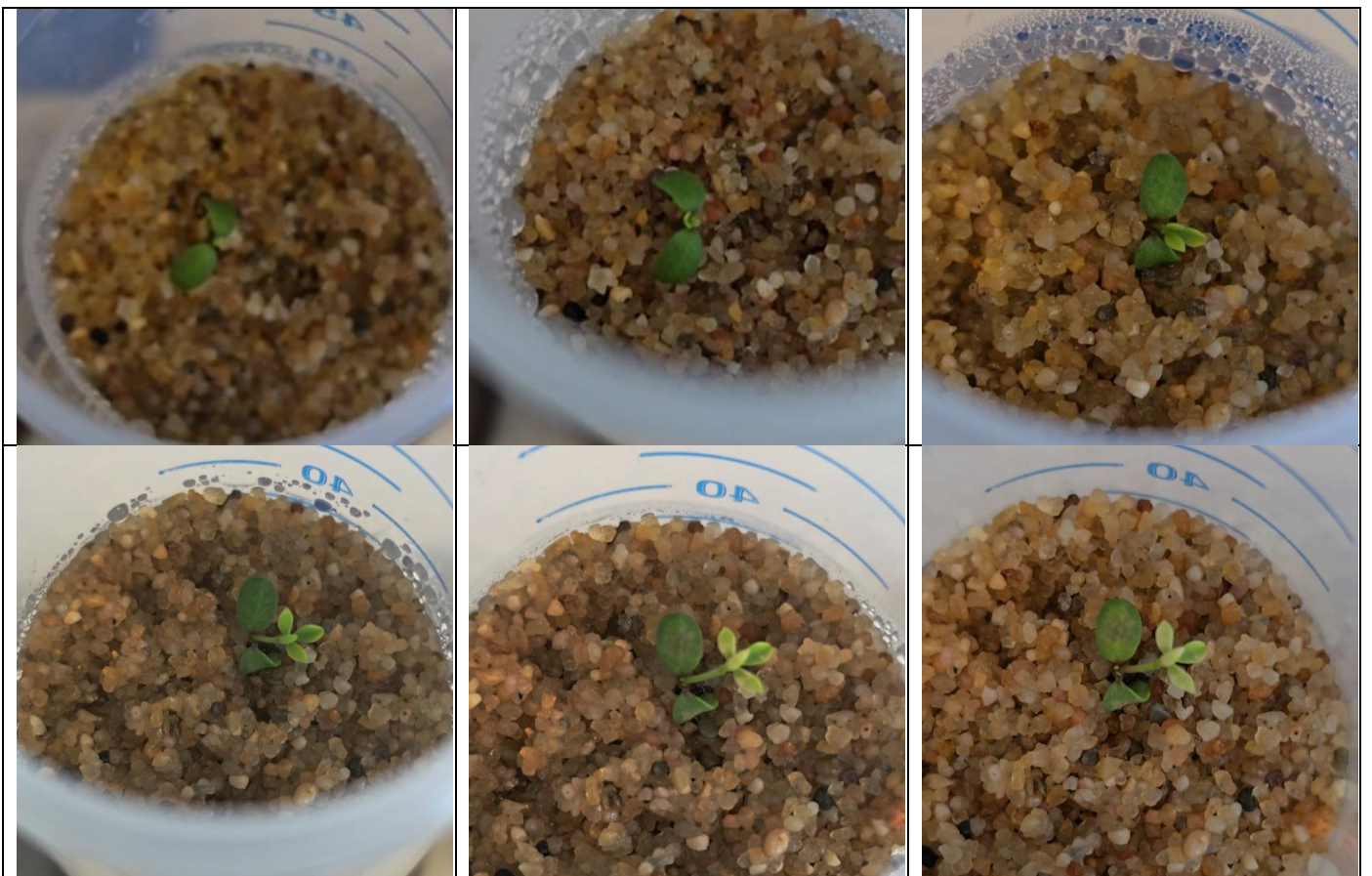


Figure 12. O1-T2-R4: Developmental progression of *L. japonicus* on sand not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 4. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison

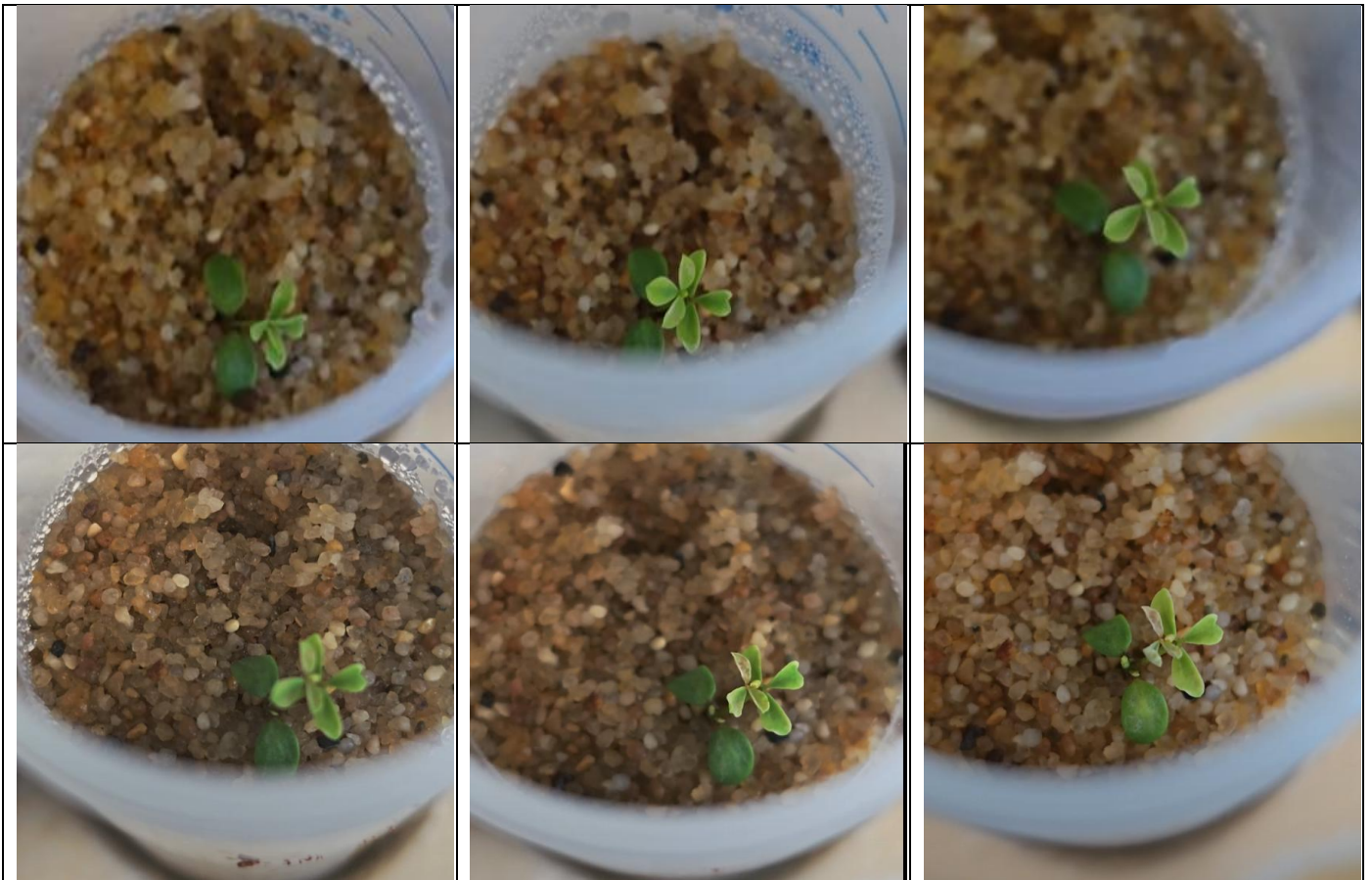


Figure 13. O1-T2-R5: Developmental progression of *L. japonicus* on sand not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 5. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison

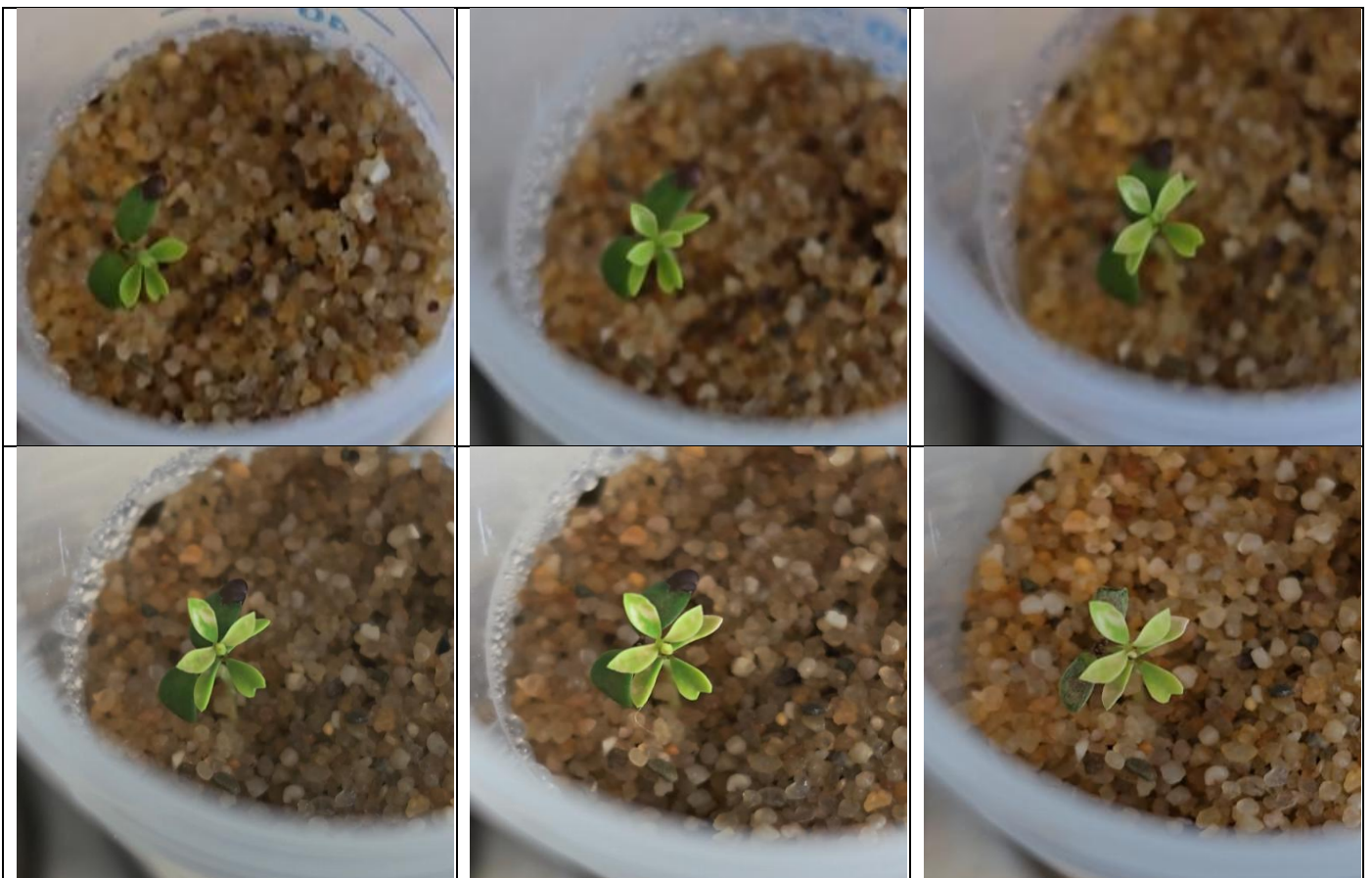


Figure 14. O1-T2-R6: Developmental progression of *L. japonicus* on sand not inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 6. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison



Figure 15. O2-T1-R1: Developmental progression of *L. japonicus* on MMS-2 inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 1. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison



Figure 16. O2-T1-R2: Developmental progression of *L. japonicus* on MMS-2 inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 2. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison



Figure 17. O2-T1-R3: Developmental progression of *L. japonicus* on MMS-2 inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 3. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison

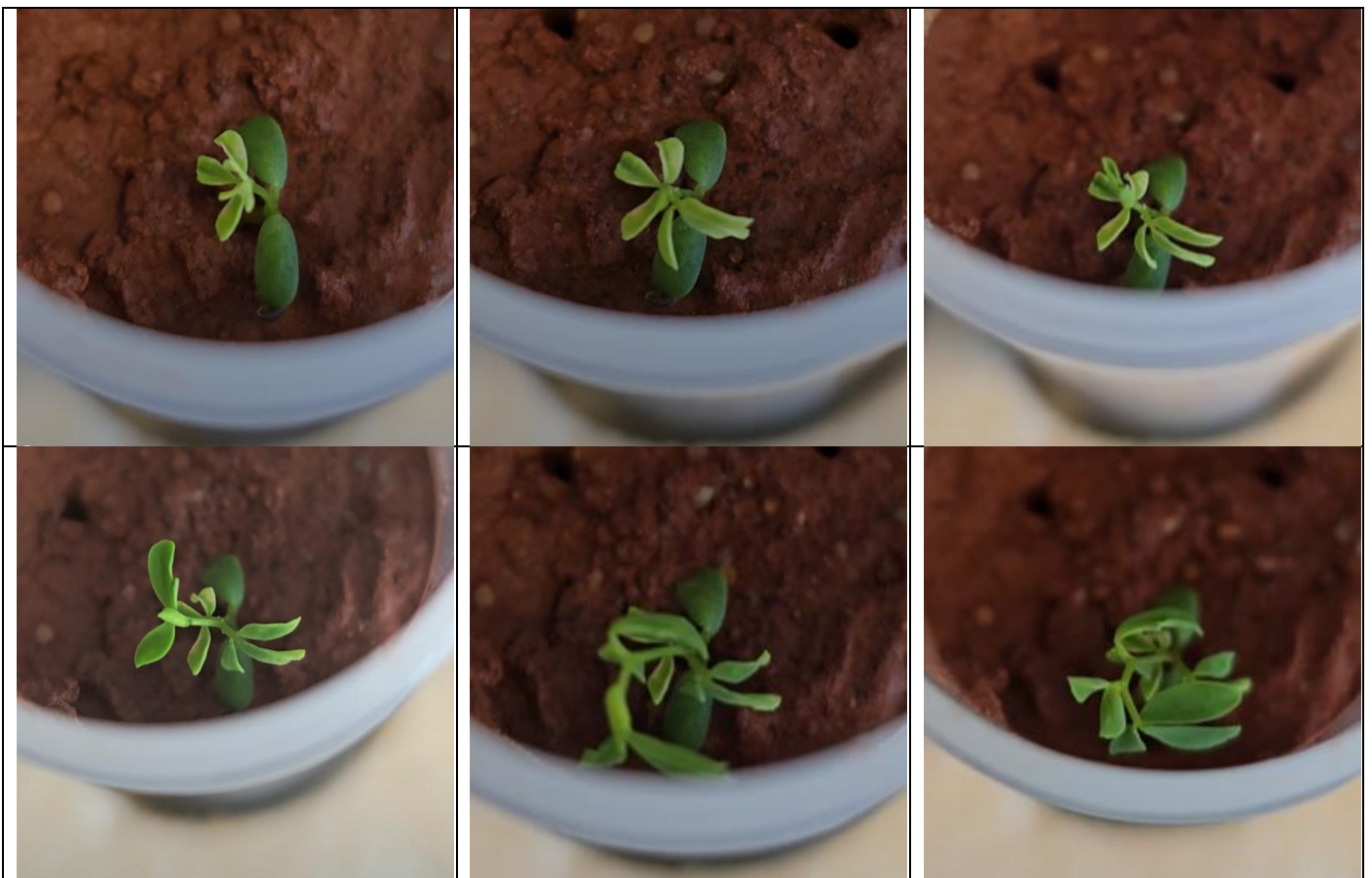


Figure 18. O2-T1-R4: Developmental progression of *L. japonicus* on MMS-2 inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 4. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison



Figure 19. O2-T1-R5: Developmental progression of *L.japonicus* on MMS-2 inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 5. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison

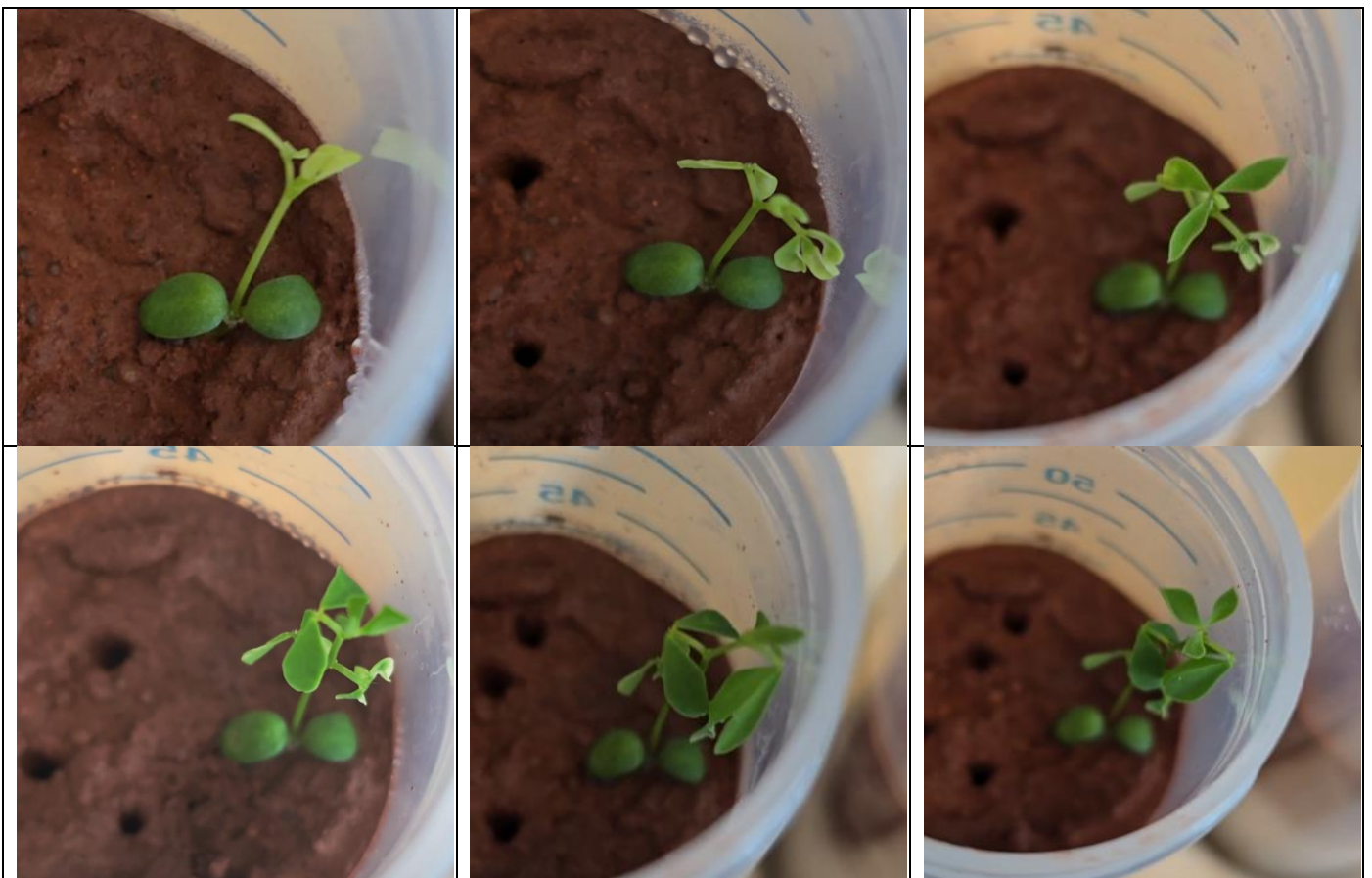


Figure 20. O2-T1-R6: Developmental progression of *L.japonicus* on MMS-2 inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 6. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison

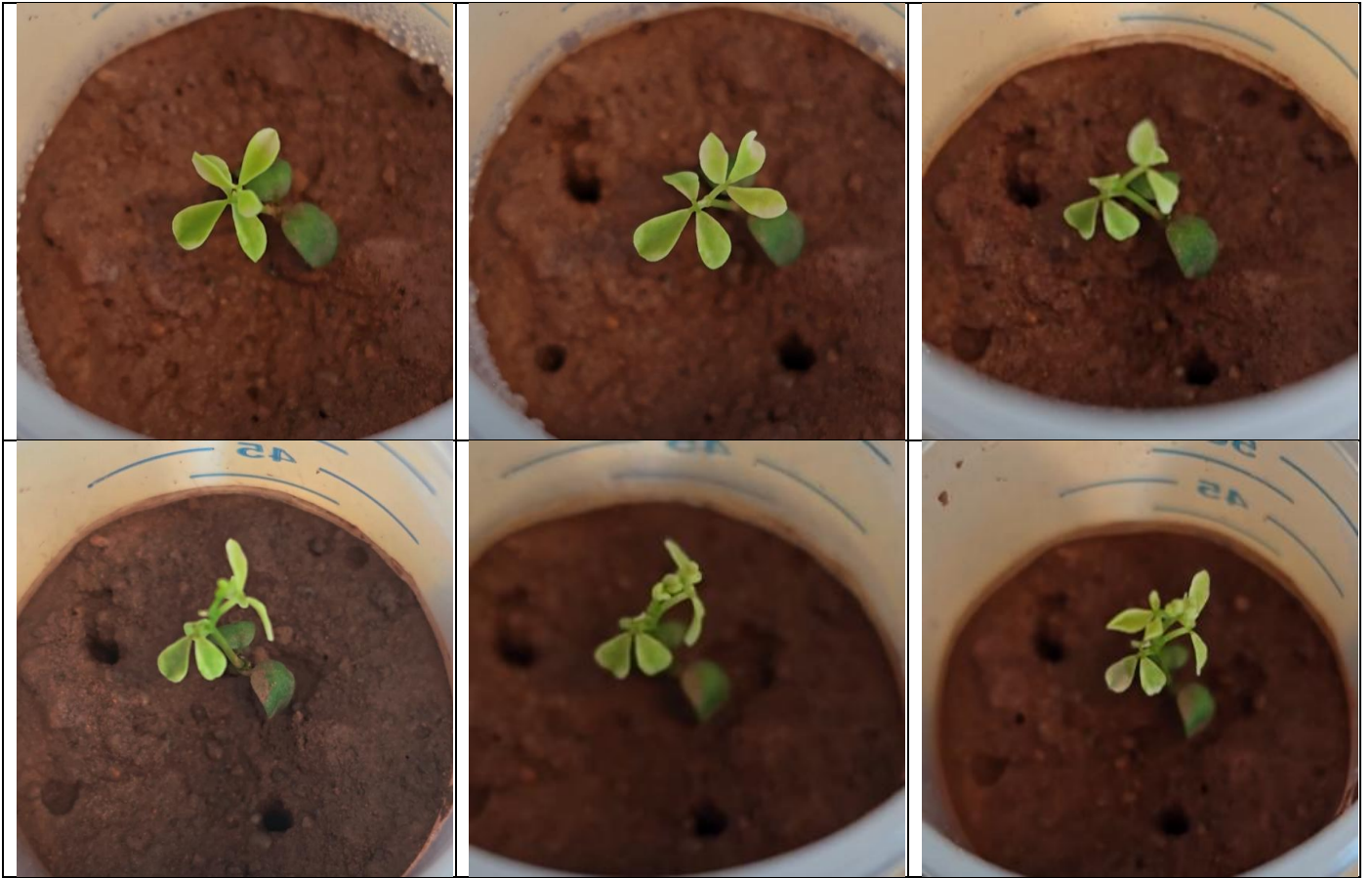


Figure 21. O2-T1-R7: Developmental progression of *L.japonicus* on MMS-2 inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 7. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison



Figure 22. O2-T1-R8: Developmental progression of *L.japonicus* on MMS-2 inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 8. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison

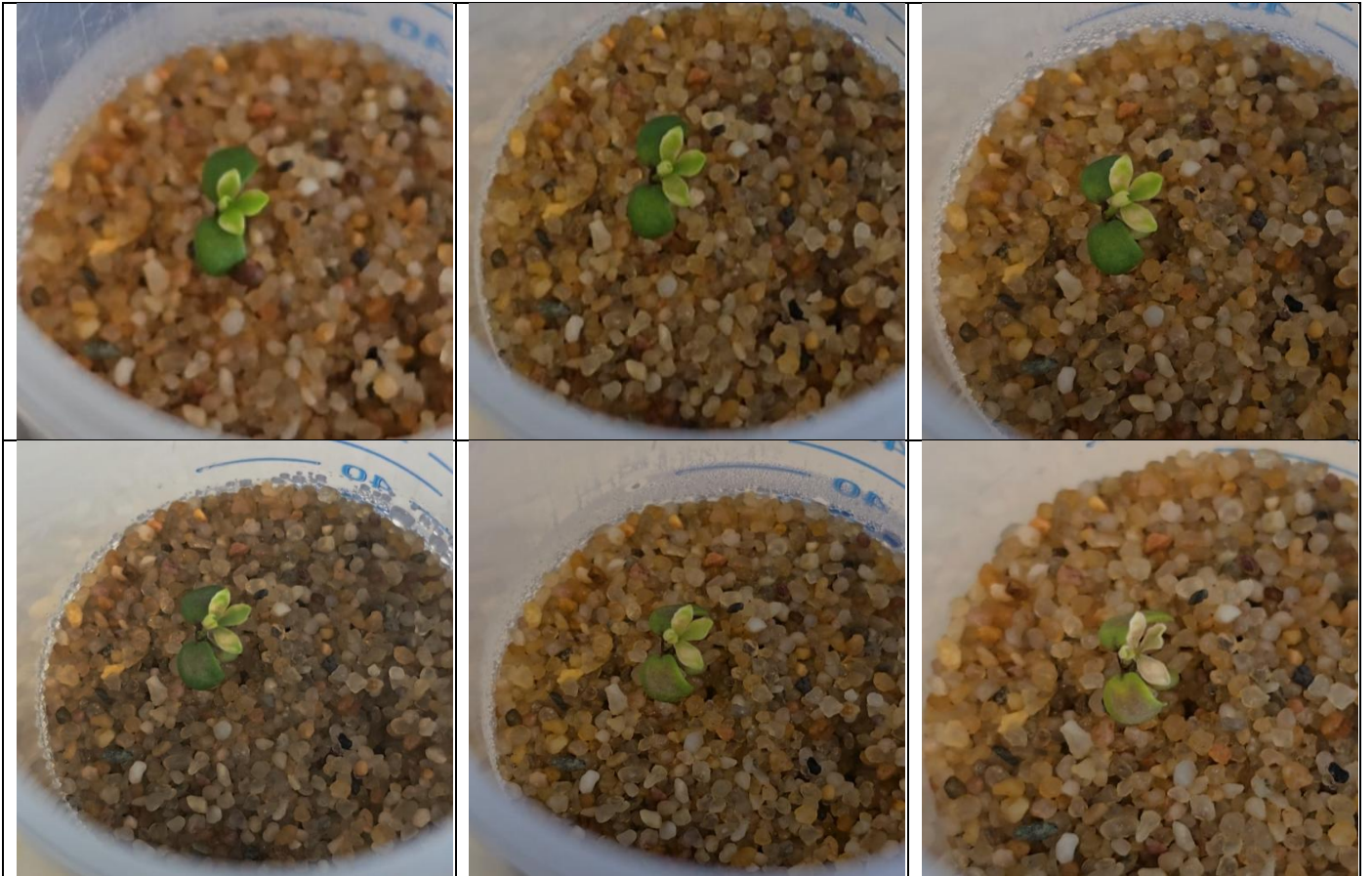


Figure 23. O2-T2-R1: Developmental progression of *L. japonicus* on sand inoculated with *Mesorhizobium sp. LjRoot218* sample replicate 1. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison

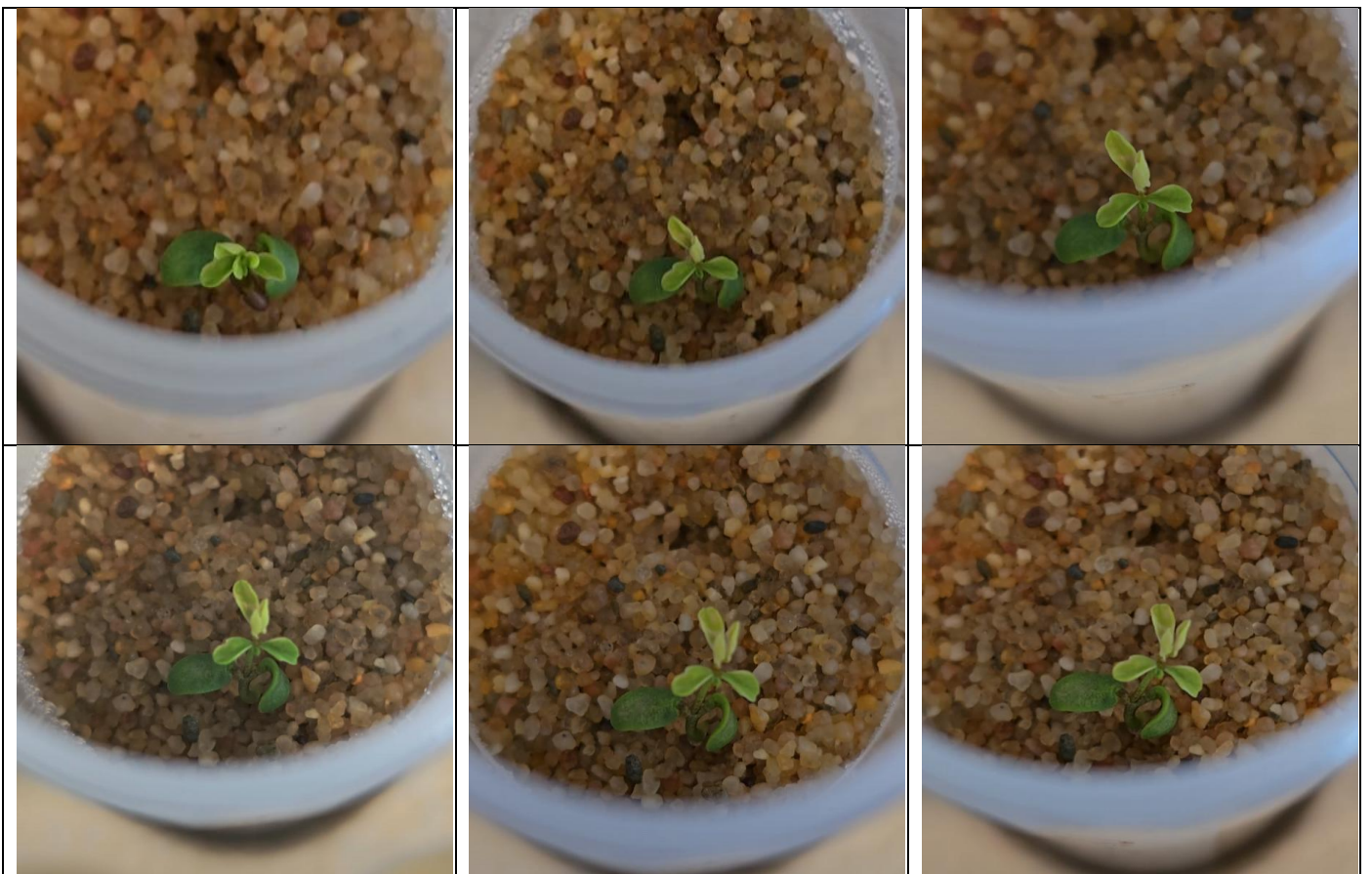


Figure 24. O2-T2-R2: Developmental progression of *L. japonicus* on sand inoculated with *Mesorhizobium sp. LjRoot218* sample replicate 2. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparison

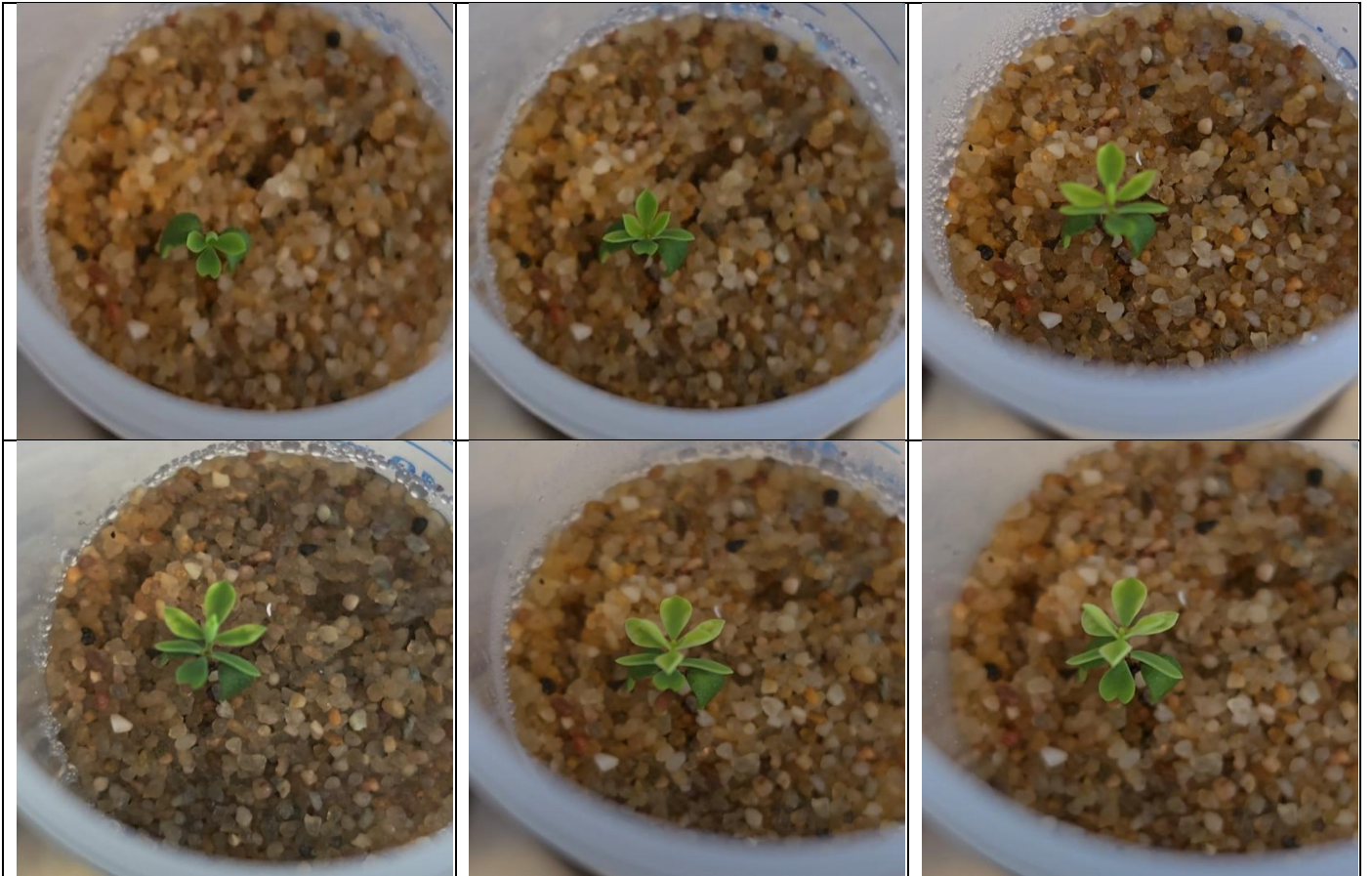


Figure 25. O2-T2-R3: Developmental progression of *L.japonicus* on sand inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 3. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparisson

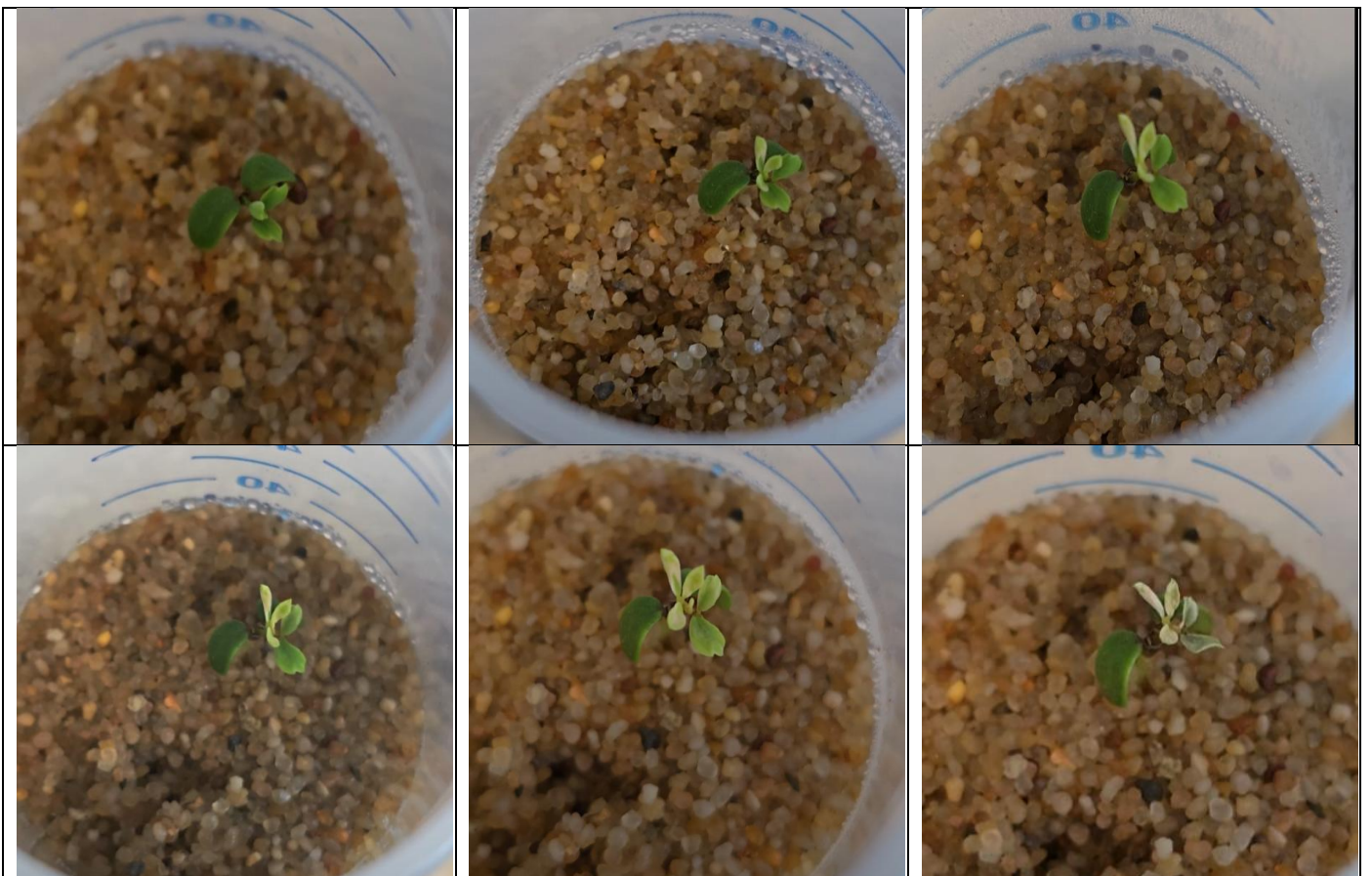


Figure 26. O2-T2-R4: Developmental progression of *L.japonicus* on sand inoculated with *Mesorhizobium* sp. *LjRoot218* sample replicate 4. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparisson

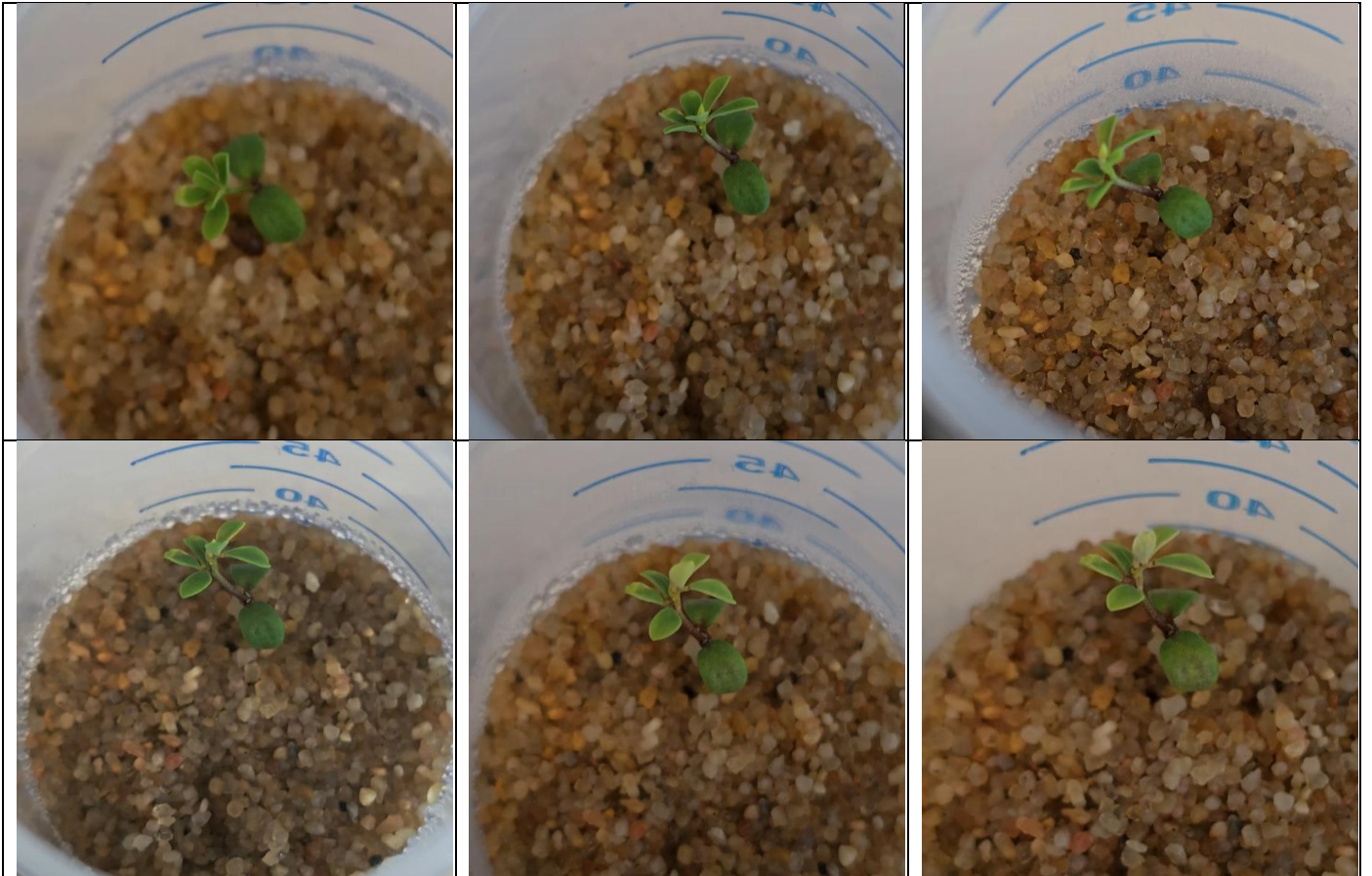


Figure 27. O2-T2-R5: Developmental progression of *L.japonicus* on sand inoculated with *Mesorhizobium sp. LjRoot218* sample replicate 5. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparisson

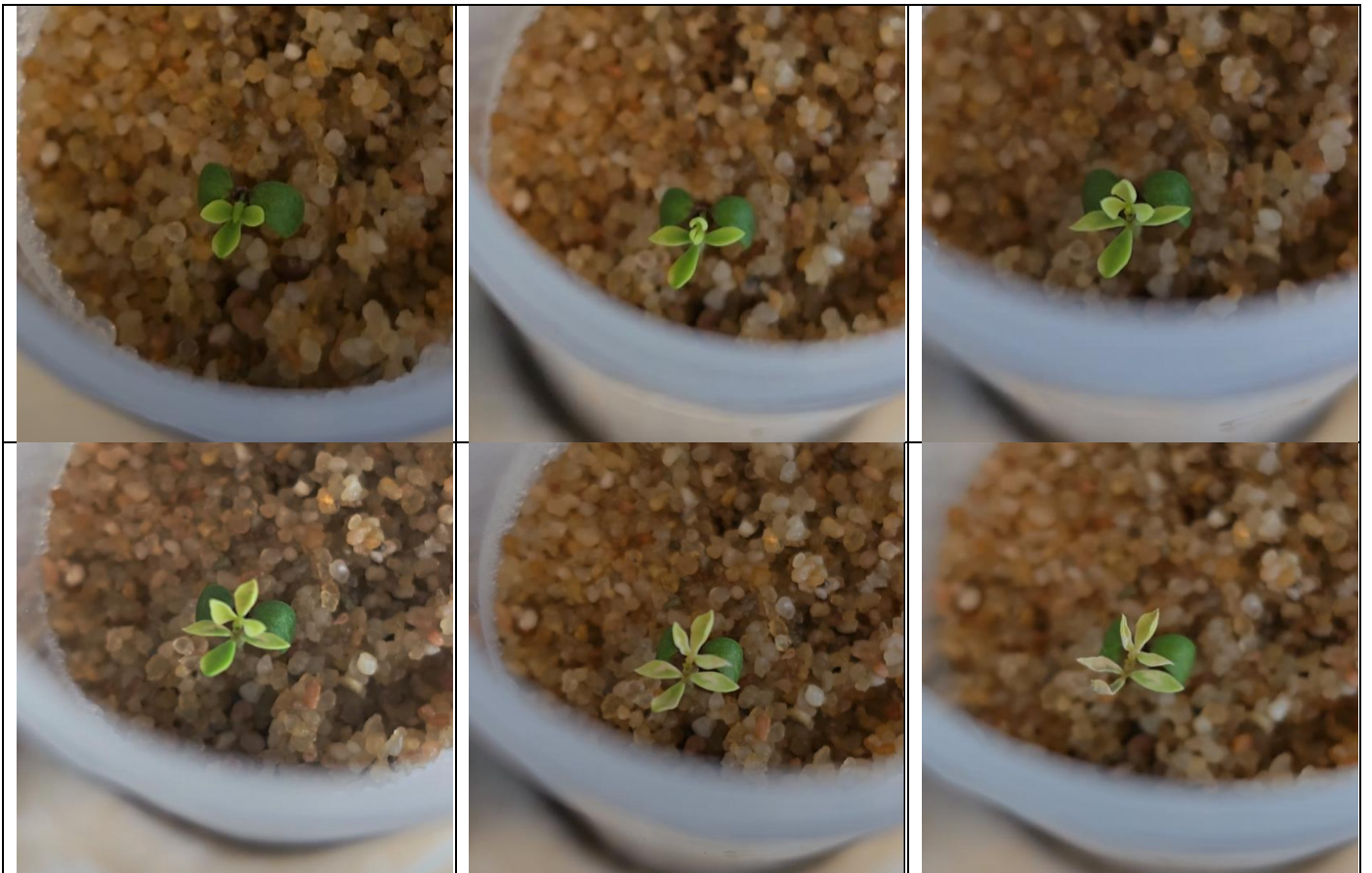


Figure 28. O2-T2-R6: Developmental progression of *L.japonicus* on sand inoculated with *Mesorhizobium sp. LjRoot218* sample replicate 6. Image from top left to bottom right taken on day: 14, 17, 19, 21, 25, 27. Image taken from roughly the same distance for comparisson

