



On abnormal leaves in *Chlorophytum borivilianum* (Asparagaceae)

Chlorophytum borivilianum Santapau ex R.R. Fern. is a perennial geophyte that perennates with the help of tubers. The digitate sessile tubers are born on the undersurface of a discoid stem. A cluster of 10–17 leaves is produced by the perennating stem with the onset of the monsoon or just few days before onset of the monsoon. Generally one flowering scape is produced by the each plant. However, on occasions more than one scape may also be produced by an individual plant (Shah, 1978; Tiagi & Aery, 2007). This is an important medicinal species which is confined mainly to the southern part of the state of Rajasthan (Sharma, 2007, 2014; Sharma & Katewa, 2007).

To know the leafing and flowering pattern of the plant, tubers were sown in poly-bags in May of 2010. During its fifth year of sprouting *i.e.* in July 2014, a plant caught my attention which produced a total of 17 leaves of different sizes and three flowering scapes of varied lengths (540, 480 and 340 mm). Of the 17 leaves, three were abnormal (Table 1).

It is evident from Table 1 that out of the 17 leaves; one was highly reduced in size, devoid of a mid-rib and was sickle-like in the shape while two possessed two mid-ribs (Fig. 1). In the double mid-ribbed leaves the orientation of mid-ribs was such that a gap was formed between the two mid ribs and the width of lamina left on either side of both of the midribs was equal. Probably the double mid-ribbed leaves resulted from the lateral fusion of two leaf primordia in an initial stage of development. Similarly, the loss of mid-ribs in the one leaf came about due to the degeneration of more than half of the leaf primordium at the beginning of development of the leaf blade. Such leaf abnormalities are not known for *Chlorophytum borivilianum*, hence it is worth placing on records.

Table 1: Dimensions and features of *Chlorophytum borivilianum* leaves grown in poly-bag; NL, normal leaf; AL, abdominal leaf.

| No. | Dimensions and number of midribs of the leaves | | | Note |
|-----|--|------------|------------|-----------------|
| | Length (mm) | Width (mm) | Mid rib(s) | |
| 01 | 227 | 36 | 1 | NL |
| 02 | 370 | 38 | 1 | NL |
| 03 | 297 | 16 | 1 | NL |
| 04 | 380 | 34 | 1 | NL |
| 05 | 350 | 35 | 1 | NL |
| 06 | 351 | 34 | 1 | NL |
| 07 | 257 | 31 | 1 | NL |
| 08 | 400 | 36 | 1 | NL |
| 09 | 410 | 35 | 1 | NL |
| 10 | 285 | 27 | 1 | NL |
| 11 | 285 | 26 | 1 | NL |
| 12 | 420 | 38 | 1 | NL |
| 13 | 342 | 34 | 1 | NL |
| 14 | 152 | 20 | 1 | NL |
| 15 | 40 | 8 | 0 | AL sickle shape |
| 16 | 342 | 38 | 2 | AL |
| 17 | 295 | 22 | 2 | AL |

Acknowledgements

I am thankful to the officials of Forest Department, Rajasthan, for providing facilities during the course of present study.

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Submitted: 8 Dec. 2014, *Accepted:* 30 Dec. 2014
Section Editor: James L. Reveal

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Figure 1: Double mid-ribbed leaf (lower surface) of *Chlorophytum borivilianum*