**Figure S3:** The image and contour plots for soil chemical properties.

|  |  |
| --- | --- |
| A Total N in upper layer | B Total N in middle layer |
|  |  |
| C Total N in lower layer | D Total K in upper layer |
|  |  |
| E Total K in middle layer | F Total K in lower layer |
|  |  |
| G pH in upper layer | H pH in middle layer |
|  |  |
| I pH in lower layer | J Organic matter in upper layer |
|  |  |
| K Organic matter in middle layer | L Organic matter in lower layer |
|  |  |