**Table S1**. Useful attributes identified in lentil landraces and wild relatives in response to biotic stressors. Modified and updated from [Coyne et al. (2020)](https://paperpile.com/c/W5SQ5y/VVgO).

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| --- | --- | --- |
| **Trait** | **Species** | **References** |
| *Biotic stresses* | | |
| Anthracnose resistance | *L. ervoides*, *L. lamottei*, *L. nigricans* | [Bhadauria et al. (2017); Dadu et al. (2017); Fiala et al. (2009); D. Gupta & Sharma, (2006); Tullu, Buchwaldt, et al. (2006); Tullu et al. (2010); Tullu, Tar’an, et al. (2006); Vail et al. (2012); Vail & Vandenberg, (2011); Ye et al. (2000)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW) |
| Ascochyta blight resistance | *L. ervoides, L. orientalis, L. odemensis, L. nigricans, L. lamottei* | [Bayaa et al.](https://paperpile.com/c/VoeQNl/zrMT+rhFL+vk78+YZQ5) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[1994](https://paperpile.com/c/VoeQNl/zrMT+rhFL+vk78+YZQ5)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; Dadu et al.](https://paperpile.com/c/VoeQNl/zrMT+rhFL+vk78+YZQ5) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2017); Tullu, Buchwaldt, et al.](https://paperpile.com/c/VoeQNl/zrMT+rhFL+vk78+YZQ5) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2006](https://paperpile.com/c/VoeQNl/zrMT+rhFL+vk78+YZQ5)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; Tullu, Tar’an, et al.](https://paperpile.com/c/VoeQNl/zrMT+rhFL+vk78+YZQ5) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2006)](https://paperpile.com/c/VoeQNl/zrMT+rhFL+vk78+YZQ5) |
| *Colletotrichum lentis* resistance | *L. culinaris, L. ervoides* | [(Buchwaldt et al. 2004](https://paperpile.com/c/VoeQNl/H3Sm+UD8V+oe3N)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; Shaikh et al.](https://paperpile.com/c/VoeQNl/H3Sm+UD8V+oe3N) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2013](https://paperpile.com/c/VoeQNl/H3Sm+UD8V+oe3N)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; Vail et al.](https://paperpile.com/c/VoeQNl/H3Sm+UD8V+oe3N) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2012)](https://paperpile.com/c/VoeQNl/H3Sm+UD8V+oe3N) |
| Stemphylium blight | *L. ervoides, L. orientalis, L. tomentosus, L. nigricans, L. odemensis, L. lamottei* | [Bhadauria et al.](https://paperpile.com/c/VoeQNl/9Iyu+rQOW+el7A) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2017](https://paperpile.com/c/VoeQNl/9Iyu+rQOW+el7A)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; Cao et al.](https://paperpile.com/c/VoeQNl/9Iyu+rQOW+el7A) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2019](https://paperpile.com/c/VoeQNl/9Iyu+rQOW+el7A)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; Podder et al. 2013)](https://paperpile.com/c/VoeQNl/9Iyu+rQOW+el7A) |
| Fusarium wilt resistance | *L. orientalis, L. ervoides* | [Bayaa et al.](https://paperpile.com/c/VoeQNl/nwqw+wsWk+YQNH) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[1995](https://paperpile.com/c/VoeQNl/nwqw+wsWk+YQNH)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; D. Gupta & Sharma,](https://paperpile.com/c/VoeQNl/nwqw+wsWk+YQNH) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2006](https://paperpile.com/c/VoeQNl/nwqw+wsWk+YQNH)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; Mohammadi et al.](https://paperpile.com/c/VoeQNl/nwqw+wsWk+YQNH) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2012)](https://paperpile.com/c/VoeQNl/nwqw+wsWk+YQNH) |
| Resistance to *Orobanche* | *L. culinaris, L. ervoides, L. odemensis, L. orientalis* | [Fernández-Aparicio et al.](https://paperpile.com/c/W5SQ5y/KZauT+ZVjY0) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2008, 2009)](https://paperpile.com/c/W5SQ5y/KZauT+ZVjY0) |
| Resistance to sitona weevils | *L. odemensis, L. ervoides, L. nigricans, L. orientalis* | [El-Bouhssini et al.](https://paperpile.com/c/W5SQ5y/BKoiw) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2008)](https://paperpile.com/c/W5SQ5y/BKoiw) |
| Resistance to bruchid weevils | *L. orientalis, L. nigricans, L. lamottei* | [Laserna-Ruiz et al.](https://paperpile.com/c/W5SQ5y/yRn2D) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2012)](https://paperpile.com/c/W5SQ5y/yRn2D) |
| Powdery mildew resistance | *L. orientalis, L. nigricans, L. ervoides* | [D. Gupta & Sharma,](https://paperpile.com/c/W5SQ5y/1E7Hc+D9DFr+U2scX) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2006](https://paperpile.com/c/W5SQ5y/1E7Hc+D9DFr+U2scX)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; M. Singh, Bisht, Dutta, et al.](https://paperpile.com/c/W5SQ5y/1E7Hc+D9DFr+U2scX) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2014](https://paperpile.com/c/W5SQ5y/1E7Hc+D9DFr+U2scX)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; M. Singh, Bisht, Kumar, et al.](https://paperpile.com/c/W5SQ5y/1E7Hc+D9DFr+U2scX) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2014b)](https://paperpile.com/c/W5SQ5y/1E7Hc+D9DFr+U2scX) |
| Rust resistance | *L. orientalis, L. odemensis, L. ervoides, L. nigricans* | [D. Gupta & Sharma,](https://paperpile.com/c/VoeQNl/wsWk+Yf0x+XHcN+hPFh) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2006](https://paperpile.com/c/VoeQNl/wsWk+Yf0x+XHcN+hPFh)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; Kumari et al.](https://paperpile.com/c/VoeQNl/wsWk+Yf0x+XHcN+hPFh) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2018](https://paperpile.com/c/VoeQNl/wsWk+Yf0x+XHcN+hPFh)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; Singh, Bisht, Dutta, et al.](https://paperpile.com/c/VoeQNl/wsWk+Yf0x+XHcN+hPFh) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2014](https://paperpile.com/c/VoeQNl/wsWk+Yf0x+XHcN+hPFh)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; Singh, Bisht, Kumar, et al.](https://paperpile.com/c/VoeQNl/wsWk+Yf0x+XHcN+hPFh) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2014)](https://paperpile.com/c/VoeQNl/wsWk+Yf0x+XHcN+hPFh) |

**Table S2**. Useful attributes identified in lentil landraces and wild relatives in response to abiotic stressors. Modified and updated from [Coyne et al. (2020)](https://paperpile.com/c/W5SQ5y/VVgO).

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| *Abiotic stresses* | | |
| Drought tolerance | *L. odemensis, L. ervoides, L. nigricans* | [Gorim & Vandenberg,](https://paperpile.com/c/VoeQNl/pY1n+O3n0) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2017](https://paperpile.com/c/VoeQNl/pY1n+O3n0)[)](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[; Hamdi et al.](https://paperpile.com/c/VoeQNl/pY1n+O3n0) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[1996)](https://paperpile.com/c/VoeQNl/pY1n+O3n0) |
| Cold tolerance | *L. orientalis* | [Hamdi et al.](https://paperpile.com/c/VoeQNl/O3n0) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[1996)](https://paperpile.com/c/VoeQNl/O3n0) |
| Heat tolerance | *L. culinaris* | [Sita et al.](https://paperpile.com/c/W5SQ5y/tBKs) [(](https://paperpile.com/c/VoeQNl/vk78+rhFL+mCl7+vP31+SU1M+oe3N+NWgm+YZQ5+wsWk+rQOW)[2017)](https://paperpile.com/c/W5SQ5y/tBKs) |