Effect of sowing date and water availability on growth of plants of chia (Salvia hispanica L) established in Chile

Silva, Herman

Arriagada, Camila

Campos-Saez, Samuel

Baginsky, Cecilia

Castellaro-Galdames, Giorgio

Morales-Salinas, Luis

© 2018 Silva et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. From 2010 to 2014 two trials were performed to assess the effect of sowing date (SD1, SD2) and irrigation treatments (IT1, IT2) on the growth of chia in central Chile, measuring leaf area (LA) and dry matter (DM) as primary parameters and relative growth rate (RGR), net assimilation rate (NAR), leaf weight ratio (LWR), crop growth rate (CGR) and specific leaf weight (SLW) as secondary parameters. Both LA and DM reached maximum values between 640 and 1150 accumulated degree days (ADD). However, LA and DM were 25% greater for sowing dates than for available water. Flowering date was also not affected by sowing date or water availability; plants flowered at 1140 and 942 ADD in SD1 and SD2 respectively, and at 499 ADD in the water availab