



Native Seed Selection for Ignition Reduction

BACKGROUND: The Southern California Ignition Reduction Project (SCIRP) aims to reduce ignitions through the management of non-native flashy fuels and enhancement of native species that are less ignitable. To identify the most appropriate native species, we worked with local experts across the southern CA region with extensive knowledge of seed propagation, restoration and vegetation ecology to rank native species using the following criteria:

1. Ability to **establish and persist in disturbed areas**, such as roadsides
2. Ability to **compete with non-native annual species**
3. Qualities that **reduce ignitability** (e.g. high LFM, non-thatch forming, minimal standing dead litter)
4. Ease of **seed collection and bulking**
5. Presence of **co-benefits** that promote pollinators, soil stabilization or other ecosystem service values

METHODS & RESULTS: Experts ranked 37 pre-selected species as a best choice (high, 3), acceptable (medium, 2), less preferred (low, 1) or not appropriate (remove, -1). They also contributed new species, which increased the species pool from 37 to 55 species. For each species, the rank was translated into a numeric score, summed and divided by the number of respondents (maximum number of respondents = 16). The Scores presented in the Tables below represent the average for each species and the superscript

represents the number of expert votes. Not every species was voted on by every expert; species with low votes were likely added by experts and were not on the original list of 37. In order to be included in the tables, there must be > 1 expert vote for the species. Species with an average score > 1.8 have been identified as best choices for seeding within SCIRP project areas.

ANNUAL FORBS	SCORE	PERENNIAL HERBS	SCORE
<i>Croton setiger</i>	2.81 ⁽¹⁶⁾	<i>Grindelia camporum</i>	3.00 ⁽²⁾
<i>Deinandra fasciculata</i>	2.67 ⁽⁹⁾	<i>Corethrogyne filaginifolia</i>	2.56 ⁽⁹⁾
<i>Trichostemma lanceolatum</i>	2.44 ⁽⁹⁾	<i>Datura wrightii</i>	2.50 ⁽¹⁰⁾
<i>Lupinus sp.</i> (annuals)	2.44 ⁽¹⁶⁾	<i>Pseudognaphalium sp.</i>	2.38 ⁽¹⁶⁾
<i>Eschscholzia californica</i>	2.31 ⁽¹⁶⁾	<i>Heliotropium curassivicum</i>	2.30 ⁽¹⁰⁾
<i>Salvia columbariae</i>	2.31 ⁽¹⁶⁾	<i>Heterotheca grandiflora</i>	2.25 ⁽¹²⁾
<i>Amsinckia menzeisii</i>	2.22 ⁽⁹⁾	<i>Asclepias sp.</i>	2.06 ⁽¹⁶⁾
<i>Acmispon sp.</i> (annuals)	2.00 ⁽¹⁶⁾	<i>Calystegia macrostegia</i>	1.94 ⁽¹⁶⁾
<i>Cryptantha/Plagiobothrys</i>	2.00 ⁽⁹⁾	<i>Sisyrinchium bellum</i>	1.93 ⁽¹⁵⁾

PERENNIAL GRASSES	SCORE	SUBSHRUBS	SCORE
<i>Sporobolus airoides</i>	3.00 ⁽²⁾	<i>Eriogonum fasciculatum</i>	3.00 ⁽³⁾
<i>Elymus sp.</i>	2.13 ⁽¹⁶⁾	<i>Eriophyllum confertiflorum</i>	2.31 ⁽¹⁶⁾
<i>Stipa sp.</i>	2.13 ⁽¹⁶⁾	<i>Acmispon glaber</i>	2.11 ⁽⁹⁾
<i>Poa sp.</i>	2.00 ⁽¹⁶⁾	<i>Hesperoyucca whipplei</i>	1.80 ⁽¹⁰⁾

NEXT STEPS: These lists are preliminary and will be refined through field tests that include roadside planting and ignitability trials. A subset of these species have been evaluated by Robert Fitch (UC Santa Barbara) for restoration potential and ignitability. If you are interested in participating in field trials, please consider using these species and working with the SCIRP vegetation management subcommittee to monitor their success.

For a full list of species considered and voter rankings, please visit: <https://tinyurl.com/SoCalSeedList>