

## Appendix A

### Supplementary Material

**Appendix A: Table 1.** Mean ( $\pm$  SE) germination percentages ( $n = 3$  replicates of 25 seeds) in the control and treatments for each species considered (for species codes, see Table 1 in the article). Species in which seeds were subjected to heat shock pre-treatment are indicated by '#'. The significance levels refer to the analysis of deviance (GLM) of the pairwise comparison of each treatment with the control (\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; \*\*\*\* $p < 0.0001$ ). Values that are considered significantly different from the control ( $p < 0.01$ ) are indicated in bold. Underlined codes (AFU, CBU and SBE) are species where the combination of KAR<sub>1</sub> and MAN had a synergistic effect on germination (see data analysis section for more details).

Species codes	TREATMENT							
	Control	SW-STR	SW-CEL	KAR <sub>1</sub>	MAN	KAR <sub>1</sub> +MAN	KNO <sub>3</sub>	GA <sub>3</sub>
<b>Annual herbs</b>								
ABA	36 $\pm$ 8	48 $\pm$ 12	42 $\pm$ 5	49 $\pm$ 7	56 $\pm$ 4*	<b>71 <math>\pm</math> 8***</b>	<b>63 <math>\pm</math> 4**</b>	55 $\pm$ 8*
<u>AFU</u>	4 $\pm$ 4	<b>23 <math>\pm</math> 5**</b>	<b>30 <math>\pm</math> 2***</b>	13 $\pm$ 5	9 $\pm$ 7	<b>28 <math>\pm</math> 3***</b>	<b>56 <math>\pm</math> 4****</b>	<b>29 <math>\pm</math> 4***</b>
<u>CBU</u>	3 $\pm$ 3	11 $\pm$ 4	14 $\pm$ 1*	4 $\pm$ 2	6 $\pm$ 1	<b>56 <math>\pm</math> 14****</b>	<b>56 <math>\pm</math> 5****</b>	4 $\pm$ 2
HSA #	4 $\pm$ 0	<b>20 <math>\pm</math> 6**</b>	15 $\pm$ 1*	11 $\pm$ 1	5 $\pm$ 1	1 $\pm$ 1	10 $\pm$ 2	3 $\pm$ 2
PEX	69 $\pm$ 6	<b>90 <math>\pm</math> 4**</b>	72 $\pm$ 2	<b>97 <math>\pm</math> 3***</b>	<b>89 <math>\pm</math> 6**</b>	<b>97 <math>\pm</math> 3***</b>	<b>93 <math>\pm</math> 3***</b>	78 $\pm$ 3
PRH	40 $\pm$ 1	25 $\pm$ 8*	24 $\pm$ 4*	33 $\pm$ 5	34 $\pm$ 4	51 $\pm$ 1	48 $\pm$ 8	51 $\pm$ 6
<u>SBE</u>	0 $\pm$ 0	0 $\pm$ 0	0 $\pm$ 0	3 $\pm$ 1	<b>65 <math>\pm</math> 9****</b>	<b>89 <math>\pm</math> 2****</b>	3 $\pm$ 1	1 $\pm$ 1
<b>Variable herbs</b>								
CFO	95 $\pm$ 3	95 $\pm$ 3	97 $\pm$ 3	94 $\pm$ 4	99 $\pm$ 1	96 $\pm$ 0	99 $\pm$ 1	99 $\pm$ 1
DCA	38 $\pm$ 8	51 $\pm$ 14	43 $\pm$ 4	43 $\pm$ 3	39 $\pm$ 11	55 $\pm$ 1*	<b>61 <math>\pm</math> 6**</b>	55 $\pm$ 3*
OCA	16 $\pm$ 3	<b>67 <math>\pm</math> 14****</b>	34 $\pm$ 5*	<b>86 <math>\pm</math> 2****</b>	29 $\pm$ 13	<b>87 <math>\pm</math> 6****</b>	<b>39 <math>\pm</math> 9**</b>	31 $\pm$ 3
OIL	91 $\pm$ 5	100 $\pm$ 0	93 $\pm$ 4	100 $\pm$ 0	89 $\pm$ 6	92 $\pm$ 4	100 $\pm$ 0	89 $\pm$ 5
PSP	95 $\pm$ 3	93 $\pm$ 2	82 $\pm$ 4	100 $\pm$ 0	<b>49 <math>\pm</math> 6****</b>	100 $\pm$ 0	84 $\pm$ 1	<b>34 <math>\pm</math> 7****</b>
SRO	11 $\pm$ 3	15 $\pm$ 5	11 $\pm$ 5	5 $\pm$ 3	3 $\pm$ 1	3 $\pm$ 3	1 $\pm$ 1*	7 $\pm$ 1
<b>Perennial herbs</b>								
APA #	31 $\pm$ 11	<b>74 <math>\pm</math> 9****</b>	<b>63 <math>\pm</math> 5****</b>	42 $\pm$ 4	<b>76 <math>\pm</math> 7****</b>	<b>69 <math>\pm</math> 2****</b>	<b>75 <math>\pm</math> 2****</b>	<b>77 <math>\pm</math> 5****</b>
HPE	1 $\pm$ 1	0 $\pm$ 0	0 $\pm$ 0	3 $\pm$ 3	0 $\pm$ 0	2 $\pm$ 2	0 $\pm$ 0	1 $\pm$ 1
ITI	82 $\pm$ 3	95 $\pm$ 3*	<b>100 <math>\pm</math> 0**</b>	95 $\pm$ 0	93 $\pm$ 4	96 $\pm$ 4*	<b>100 <math>\pm</math> 0**</b>	87 $\pm$ 4
OHI	93 $\pm$ 1	98 $\pm$ 2	100 $\pm$ 0	96 $\pm$ 2	100 $\pm$ 0	98 $\pm$ 2	100 $\pm$ 0	98 $\pm$ 2
PAU	95 $\pm$ 3	87 $\pm$ 2	79 $\pm$ 3*	95 $\pm$ 3	90 $\pm$ 3	91 $\pm$ 2	100 $\pm$ 0	<b>69 <math>\pm</math> 8**</b>
RTU	65 $\pm$ 6	<b>89 <math>\pm</math> 1**</b>	79 $\pm$ 4	<b>94 <math>\pm</math> 3***</b>	<b>97 <math>\pm</math> 3****</b>	<b>100 <math>\pm</math> 0****</b>	<b>98 <math>\pm</math> 2****</b>	72 $\pm$ 5

SCR	7 ± 5	11 ± 2	3 ± 2	<b>52 ± 7****</b>	7 ± 1	<b>57 ± 3****</b>	2 ± 2	12 ± 1
SMI	67 ± 5	78 ± 5	82 ± 2*	84 ± 2*	72 ± 5	<b>87 ± 3**</b>	70 ± 1	85 ± 4*
SVU	92 ± 5	87 ± 7	95 ± 1	95 ± 1	93 ± 3	94 ± 6	99 ± 1	90 ± 1
TLE	39 ± 9	38 ± 3	27 ± 9	38 ± 2	41 ± 5	47 ± 7	55 ± 9	36 ± 2
TSP	96 ± 2	90 ± 3	90 ± 5	93 ± 1	90 ± 4	93 ± 2	95 ± 3	96 ± 3
<b>Geophytes</b>								
MCO	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
ONA	5 ± 1	4 ± 2	1 ± 1	0 ± 0	3 ± 1	4 ± 0	7 ± 3	0 ± 0
<b>Woody species</b>								
CCR #	93 ± 3	86 ± 1	84 ± 1	97 ± 1	97 ± 1	89 ± 3	97 ± 3	93 ± 1
CLA #	34 ± 1	24 ± 9	33 ± 5	28 ± 8	22 ± 4	20 ± 2	34 ± 9	23 ± 6
CPA #	47 ± 6	43 ± 7	41 ± 3	28 ± 3*	31 ± 11	<b>27 ± 4*</b>	48 ± 6	40 ± 6
CSA #	18 ± 5	12 ± 4	18 ± 4	16 ± 6	23 ± 2	15 ± 9	12 ± 7	<b>38 ± 6**</b>
PBO	14 ± 3	26 ± 7	21 ± 4	17 ± 4	32 ± 12	15 ± 1	9 ± 1	13 ± 2
SFR	0 ± 0	0 ± 0	0 ± 0	2 ± 2	0 ± 0	0 ± 0	0 ± 0	0 ± 0
TSPI	5 ± 5	17 ± 3*	13 ± 4	6 ± 3	14 ± 1	<b>24 ± 2**</b>	18 ± 7*	6 ± 0

\*SW-STR, SW-CEL, KAR<sub>1</sub> and MAN are abbreviations for straw-derived smoke-water, cellulose-derived smoke-water, karrikinolide and mandelonitrile, respectively.

**Appendix A: Table 2.** Mean ( $\pm$  SE) root length (mm, n= 3 replicates of 5 seedlings) in the control and treatments for each species considered (for species codes, see Table 1 in the article). The significance of the pairwise comparison of each treatment with the control (according to Dunnett's test) is given (\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; \*\*\*\* $p < 0.0001$ ). Values that are significantly different from the control ( $p < 0.01$ ) are indicated by boldface type.

Species codes	Control	TREATMENT						
		SW-STR	SW-CEL	KAR <sub>1</sub>	MAN	KAR <sub>1</sub> +MAN	KNO <sub>3</sub>	GA <sub>3</sub>
<b>Annual herbs</b>								
ABA	88 $\pm$ 23	78 $\pm$ 17	87 $\pm$ 22	74 $\pm$ 8	64 $\pm$ 5	55 $\pm$ 7	56 $\pm$ 10	72 $\pm$ 7
LCU	34 $\pm$ 2	38 $\pm$ 2	39 $\pm$ 2	40 $\pm$ 2	36 $\pm$ 1	40 $\pm$ 2	31 $\pm$ 2	38 $\pm$ 2
PEX	20 $\pm$ 2	26 $\pm$ 2*	22 $\pm$ 1	21 $\pm$ 2	16 $\pm$ 1	15 $\pm$ 1*	18 $\pm$ 1	20 $\pm$ 1
<b>Variable herbs</b>								
CFO	22 $\pm$ 2	18 $\pm$ 3	16 $\pm$ 2	24 $\pm$ 3	16 $\pm$ 2	23 $\pm$ 6	28 $\pm$ 2	34 $\pm$ 3*
DCA	15 $\pm$ 2	19 $\pm$ 1	19 $\pm$ 1	17 $\pm$ 1	<b>26 <math>\pm</math> 1****</b>	<b>23 <math>\pm</math> 2**</b>	20 $\pm$ 1	21 $\pm$ 1*
SAS	38 $\pm$ 2	28 $\pm$ 5	29 $\pm$ 5	37 $\pm$ 2	39 $\pm$ 3	24 $\pm$ 1*	38 $\pm$ 3	26 $\pm$ 2*
TLO	20 $\pm$ 3	24 $\pm$ 4	<b>45 <math>\pm</math> 3****</b>	33 $\pm$ 5	12 $\pm$ 1	<b>46 <math>\pm</math> 3****</b>	<b>42 <math>\pm</math> 3****</b>	34 $\pm$ 4*
<b>Perennial herbs</b>								
ITI	33 $\pm$ 6	25 $\pm$ 2	34 $\pm$ 2	37 $\pm$ 4	35 $\pm$ 7	37 $\pm$ 4	40 $\pm$ 4	27 $\pm$ 3
RTU	44 $\pm$ 3	47 $\pm$ 2	49 $\pm$ 3	54 $\pm$ 2*	37 $\pm$ 2	46 $\pm$ 2	47 $\pm$ 1	46 $\pm$ 2
SMI	31 $\pm$ 3	22 $\pm$ 3	28 $\pm$ 2	<b>47 <math>\pm</math> 3***</b>	31 $\pm$ 2	<b>47 <math>\pm</math> 2***</b>	<b>58 <math>\pm</math> 4****</b>	<b>50 <math>\pm</math> 2***</b>
SVU	32 $\pm$ 2	33 $\pm$ 1	30 $\pm$ 3	36 $\pm$ 3	32 $\pm$ 1	36 $\pm$ 2	<b>44 <math>\pm</math> 2***</b>	29 $\pm$ 2
TLE	24 $\pm$ 2	25 $\pm$ 2	<b>40 <math>\pm</math> 2**</b>	<b>47 <math>\pm</math> 6****</b>	34 $\pm$ 1	<b>45 <math>\pm</math> 2***</b>	35 $\pm$ 3	37 $\pm$ 3*
<b>Unknown herbs</b>								
PSP	57 $\pm$ 3	66 $\pm$ 5	68 $\pm$ 4	72 $\pm$ 5	67 $\pm$ 4	72 $\pm$ 3	70 $\pm$ 2	63 $\pm$ 5
TSP	12 $\pm$ 1	13 $\pm$ 1	17 $\pm$ 1	19 $\pm$ 2*	15 $\pm$ 2	18 $\pm$ 2	<b>23 <math>\pm</math> 3***</b>	19 $\pm$ 1*
<b>Woody species</b>								
CCR	14 $\pm$ 1	17 $\pm$ 1	14 $\pm$ 1	18 $\pm$ 1	<b>20 <math>\pm</math> 1***</b>	17 $\pm$ 1	17 $\pm$ 1	<b>20 <math>\pm</math> 1**</b>
LST	16 $\pm$ 2	18 $\pm$ 1	23 $\pm$ 3*	22 $\pm$ 1*	15 $\pm$ 1	16 $\pm$ 1	13 $\pm$ 1	11 $\pm$ 2

\*SW-STR, SW-CEL, KAR<sub>1</sub> and MAN are abbreviations for straw-derived smoke-water, cellulose-derived smoke-water, karrikinolide and mandelonitrile, respectively.

**Appendix A: Table 3.** Mean ( $\pm$  SE) shoot length (mm, n= 3 replicates of 5 seedlings) in the control and treatments for each species considered (for species codes, see Table 1 in the article). The significance of the pairwise comparison of each treatment with the control (according to Dunnett's test) is given (\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; \*\*\*\* $p < 0.0001$ ). Values that are significantly different from the control ( $p < 0.01$ ) are indicated by boldface type.

Species codes	Control	TREATMENT						
		SW-STR	SW-CEL	KAR <sub>1</sub>	MAN	KAR <sub>1</sub> +MAN	KNO <sub>3</sub>	GA <sub>3</sub>
<b>Annual herbs</b>								
ABA	129 $\pm$ 16	126 $\pm$ 5	110 $\pm$ 5	118 $\pm$ 6	136 $\pm$ 3	113 $\pm$ 5	125 $\pm$ 4	141 $\pm$ 4
LCU	29 $\pm$ 1	24 $\pm$ 1	24 $\pm$ 2	25 $\pm$ 2	26 $\pm$ 3	27 $\pm$ 2	28 $\pm$ 2	28 $\pm$ 1
PEX	12 $\pm$ 1	13 $\pm$ 1	13 $\pm$ 1	11 $\pm$ 0	11 $\pm$ 1	11 $\pm$ 1	13 $\pm$ 1	15 $\pm$ 1
<b>Variable herbs</b>								
CFO	6 $\pm$ 1	11 $\pm$ 2*	6 $\pm$ 1	7 $\pm$ 1	5 $\pm$ 0	5 $\pm$ 1	8 $\pm$ 1	<b>11 <math>\pm</math> 1**</b>
DCA	18 $\pm$ 1	18 $\pm$ 1	20 $\pm$ 1	15 $\pm$ 1	18 $\pm$ 1	23 $\pm$ 1*	19 $\pm$ 1	21 $\pm$ 1
SAS	10 $\pm$ 2	8 $\pm$ 2	6 $\pm$ 1	7 $\pm$ 1	8 $\pm$ 1	8 $\pm$ 1	7 $\pm$ 1	6 $\pm$ 1
TLO	23 $\pm$ 1	18 $\pm$ 2	24 $\pm$ 1	26 $\pm$ 1	18 $\pm$ 1	25 $\pm$ 2	23 $\pm$ 1	25 $\pm$ 1
<b>Perennial herbs</b>								
ITI	25 $\pm$ 1	25 $\pm$ 5	31 $\pm$ 3	25 $\pm$ 4	26 $\pm$ 4	29 $\pm$ 2	32 $\pm$ 2	30 $\pm$ 2
RTU	13 $\pm$ 1	13 $\pm$ 1	12 $\pm$ 1	12 $\pm$ 1	14 $\pm$ 1	12 $\pm$ 0	11 $\pm$ 1	14 $\pm$ 1
SMI	21 $\pm$ 1	22 $\pm$ 1	25 $\pm$ 1	22 $\pm$ 1	22 $\pm$ 1	21 $\pm$ 1	24 $\pm$ 2	<b>28 <math>\pm</math> 2**</b>
SVU	33 $\pm$ 2	33 $\pm$ 2	34 $\pm$ 2	30 $\pm$ 1	29 $\pm$ 2	29 $\pm$ 2	34 $\pm$ 2	34 $\pm$ 2
TLE	51 $\pm$ 1	44 $\pm$ 3	46 $\pm$ 2	42 $\pm$ 3	40 $\pm$ 1*	46 $\pm$ 2	42 $\pm$ 3	60 $\pm$ 3
<b>Unknown herbs</b>								
PSP	14 $\pm$ 1	14 $\pm$ 1	14 $\pm$ 1	13 $\pm$ 1	15 $\pm$ 1	11 $\pm$ 1	14 $\pm$ 2	16 $\pm$ 1
TSP	7 $\pm$ 0	6 $\pm$ 1	6 $\pm$ 0	6 $\pm$ 0	7 $\pm$ 0	6 $\pm$ 0	7 $\pm$ 0	7 $\pm$ 0
<b>Woody species</b>								
CCR	16 $\pm$ 1	15 $\pm$ 1	14 $\pm$ 1	15 $\pm$ 1	15 $\pm$ 1	16 $\pm$ 1	17 $\pm$ 1	18 $\pm$ 1
LST	24 $\pm$ 1	24 $\pm$ 2	23 $\pm$ 2	22 $\pm$ 1	24 $\pm$ 2	19 $\pm$ 1	24 $\pm$ 1	26 $\pm$ 2

\*SW-STR, SW-CEL, KAR<sub>1</sub> and MAN are abbreviations for straw-derived smoke-water, cellulose-derived smoke-water, karrikinolide and mandelonitrile, respectively.

**Appendix A: Table 4.** Mean ( $\pm$  SE) total seedling length (mm, n= 3 replicates of 5 seedlings) in the control and treatments for each species considered (for species codes, see Table 1 in the article). The significance of the pairwise comparison of each treatment with the control (according to Dunnett's test) is given (\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; \*\*\*\* $p < 0.0001$ ). Values that are significantly different from the control ( $p < 0.01$ ) are indicated by boldface type.

Species codes	Control	TREATMENT						
		SW-STR	SW-CEL	KAR <sub>1</sub>	MAN	KAR <sub>1</sub> +MAN	KNO <sub>3</sub>	GA <sub>3</sub>
<b>Annual herbs</b>								
ABA	218 $\pm$ 40	204 $\pm$ 14	197 $\pm$ 23	191 $\pm$ 10	200 $\pm$ 5	168 $\pm$ 10	181 $\pm$ 11	213 $\pm$ 8
LCU	63 $\pm$ 2	62 $\pm$ 2	63 $\pm$ 2	65 $\pm$ 2	62 $\pm$ 3	67 $\pm$ 3	59 $\pm$ 3	66 $\pm$ 2
PEX	32 $\pm$ 3	39 $\pm$ 2	35 $\pm$ 1	32 $\pm$ 2	27 $\pm$ 2	26 $\pm$ 1	31 $\pm$ 2	35 $\pm$ 2
<b>Variable herbs</b>								
CFO	28 $\pm$ 3	29 $\pm$ 5	21 $\pm$ 2	31 $\pm$ 3	21 $\pm$ 2	29 $\pm$ 6	36 $\pm$ 3	<b>45 <math>\pm</math> 3**</b>
DCA	33 $\pm$ 2	37 $\pm$ 2	39 $\pm$ 2	32 $\pm$ 2	<b>44 <math>\pm</math> 1**</b>	<b>46 <math>\pm</math> 3***</b>	39 $\pm$ 1	<b>42 <math>\pm</math> 1**</b>
SAS	48 $\pm$ 4	36 $\pm$ 5	36 $\pm$ 5	45 $\pm$ 2	47 $\pm$ 3	32 $\pm$ 1*	45 $\pm$ 3	<b>31 <math>\pm</math> 2**</b>
TLO	44 $\pm$ 3	41 $\pm$ 6	<b>70 <math>\pm</math> 3****</b>	60 $\pm$ 5	30 $\pm$ 2	<b>71 <math>\pm</math> 4****</b>	<b>65 <math>\pm</math> 4**</b>	59 $\pm$ 5
<b>Perennial herbs</b>								
ITI	58 $\pm$ 6	50 $\pm$ 6	65 $\pm$ 3	62 $\pm$ 7	61 $\pm$ 11	66 $\pm$ 4	72 $\pm$ 5	57 $\pm$ 4
RTU	56 $\pm$ 3	61 $\pm$ 3	61 $\pm$ 3	66 $\pm$ 2*	51 $\pm$ 2	58 $\pm$ 2	58 $\pm$ 1	61 $\pm$ 2
SMI	52 $\pm$ 3	43 $\pm$ 3	53 $\pm$ 2	<b>70 <math>\pm</math> 4***</b>	53 $\pm$ 2	<b>68 <math>\pm</math> 1**</b>	<b>82 <math>\pm</math> 4****</b>	<b>78 <math>\pm</math> 3****</b>
SVU	65 $\pm$ 3	67 $\pm$ 2	64 $\pm$ 3	66 $\pm$ 4	61 $\pm$ 2	65 $\pm$ 3	<b>79 <math>\pm</math> 2**</b>	63 $\pm$ 3
TLE	75 $\pm$ 2	69 $\pm$ 4	86 $\pm$ 3	89 $\pm$ 7	73 $\pm$ 1	92 $\pm$ 4	77 $\pm$ 6	97 $\pm$ 5*
<b>Unknown herbs</b>								
PSP	71 $\pm$ 3	80 $\pm$ 5	82 $\pm$ 4	85 $\pm$ 5	82 $\pm$ 4	83 $\pm$ 3	84 $\pm$ 3	79 $\pm$ 5
TSP	19 $\pm$ 1	18 $\pm$ 1	23 $\pm$ 1	25 $\pm$ 2	23 $\pm$ 2	24 $\pm$ 2	<b>30 <math>\pm</math> 3***</b>	25 $\pm$ 1*
<b>Woody species</b>								
CCR	31 $\pm$ 2	32 $\pm$ 1	28 $\pm$ 1	34 $\pm$ 2	36 $\pm$ 1	33 $\pm$ 1	34 $\pm$ 2	<b>38 <math>\pm</math> 1**</b>
LST	41 $\pm$ 2	42 $\pm$ 2	45 $\pm$ 3	44 $\pm$ 2	39 $\pm$ 2	35 $\pm$ 2	36 $\pm$ 1	37 $\pm$ 3

\*SW-STR, SW-CEL, KAR<sub>1</sub> and MAN are abbreviations for straw-derived smoke-water, cellulose-derived smoke-water, karrikinolide and mandelonitrile, respectively.

**Appendix A: Table 5.** Mean ( $\pm$  SE) root-shoot ratio (n= 3 replicates of 5 seedlings) in the control and treatments for each species considered (for species codes, see Table 1 in the article). The significance of the pairwise comparison of each treatment with the control (according to Dunnett's test) is given (\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; \*\*\*\* $p < 0.0001$ ). Values that are significantly different from the control ( $p < 0.01$ ) are indicated by boldface type.

Species codes	Control	TREATMENT						
		SW-STR	SW-CEL	KAR <sub>1</sub>	MAN	KAR <sub>1</sub> +MAN	KNO <sub>3</sub>	GA <sub>3</sub>
<b>Annual herbs</b>								
ABA	0.64 $\pm$ 0.12	0.63 $\pm$ 0.15	0.79 $\pm$ 0.19	0.64 $\pm$ 0.08	0.48 $\pm$ 0.04	0.49 $\pm$ 0.06	0.45 $\pm$ 0.08	0.52 $\pm$ 0.05
LCU	1.20 $\pm$ 0.10	1.59 $\pm$ 0.12	1.72 $\pm$ 0.17	1.76 $\pm$ 0.21*	1.59 $\pm$ 0.24	1.54 $\pm$ 0.17	1.15 $\pm$ 0.10	1.34 $\pm$ 0.07
PEX	1.69 $\pm$ 0.09	2.07 $\pm$ 0.19	1.81 $\pm$ 0.16	2.04 $\pm$ 0.16	1.40 $\pm$ 0.05	1.45 $\pm$ 0.27	1.37 $\pm$ 0.13	1.41 $\pm$ 0.15
<b>Variable herbs</b>								
CFO	3.95 $\pm$ 0.24	1.86 $\pm$ 0.34	2.85 $\pm$ 0.24	3.47 $\pm$ 0.78	3.01 $\pm$ 0.43	4.58 $\pm$ 1.21	3.95 $\pm$ 0.52	3.12 $\pm$ 0.36
DCA	0.84 $\pm$ 0.08	1.09 $\pm$ 0.08	0.99 $\pm$ 0.06	1.14 $\pm$ 0.09	<b>1.48 <math>\pm</math> 0.13****</b>	1.05 $\pm$ 0.13	1.06 $\pm$ 0.07	1.01 $\pm$ 0.08
PSP	4.06 $\pm$ 0.17	4.86 $\pm$ 0.42	5.02 $\pm$ 0.50	5.63 $\pm$ 0.53	4.72 $\pm$ 0.59	<b>7.32 <math>\pm</math> 1.07**</b>	5.30 $\pm$ 0.66	4.20 $\pm$ 0.53
SAS	4.71 $\pm$ 0.82	4.32 $\pm$ 1.03	4.92 $\pm$ 0.50	5.70 $\pm$ 0.64	4.97 $\pm$ 0.66	3.11 $\pm$ 0.41	6.29 $\pm$ 0.95	4.72 $\pm$ 0.37
TLO	0.88 $\pm$ 0.12	1.26 $\pm$ 0.12	<b>1.88 <math>\pm</math> 0.13****</b>	1.29 $\pm$ 0.17	0.69 $\pm$ 0.08	<b>1.94 <math>\pm</math> 0.17****</b>	<b>1.87 <math>\pm</math> 0.12****</b>	1.37 $\pm$ 0.15
<b>Perennial herbs</b>								
ITI	1.33 $\pm$ 0.24	1.11 $\pm$ 0.24	1.17 $\pm$ 0.12	1.54 $\pm$ 0.15	1.39 $\pm$ 0.16	1.33 $\pm$ 0.15	1.28 $\pm$ 0.13	0.93 $\pm$ 0.08
RTU	3.62 $\pm$ 0.30	3.61 $\pm$ 0.23	4.26 $\pm$ 0.36	4.65 $\pm$ 0.28	2.66 $\pm$ 0.17	3.94 $\pm$ 0.27	4.26 $\pm$ 0.28	3.42 $\pm$ 0.27
SMI	1.53 $\pm$ 0.15	1.02 $\pm$ 0.18	1.13 $\pm$ 0.13	2.16 $\pm$ 0.13	1.44 $\pm$ 0.12	<b>2.45 <math>\pm</math> 0.24**</b>	<b>2.57 <math>\pm</math> 0.28***</b>	1.84 $\pm$ 0.14
SVU	0.97 $\pm$ 0.09	1.04 $\pm$ 0.06	0.91 $\pm$ 0.11	1.21 $\pm$ 0.12	1.21 $\pm$ 0.14	1.31 $\pm$ 0.13	1.33 $\pm$ 0.11	0.88 $\pm$ 0.07
TLE	0.47 $\pm$ 0.03	0.58 $\pm$ 0.04	<b>0.86 <math>\pm</math> 0.07**</b>	<b>1.14 <math>\pm</math> 0.15****</b>	<b>0.86 <math>\pm</math> 0.05**</b>	<b>0.99 <math>\pm</math> 0.06****</b>	<b>0.82 <math>\pm</math> 0.06**</b>	0.61 $\pm$ 0.05
TSP	1.94 $\pm$ 0.24	2.27 $\pm$ 0.27	2.93 $\pm$ 0.45	<b>3.34 <math>\pm</math> 0.22**</b>	2.16 $\pm$ 0.22	3.36 $\pm$ 0.45*	3.24 $\pm$ 0.27*	2.80 $\pm$ 0.25
<b>Woody species</b>								
CCR	0.91 $\pm$ 0.08	1.12 $\pm$ 0.06	1.06 $\pm$ 0.08	1.22 $\pm$ 0.08	1.34 $\pm$ 0.08	1.07 $\pm$ 0.06	1.09 $\pm$ 0.13	1.15 $\pm$ 0.10
LST	0.70 $\pm$ 0.09	0.76 $\pm$ 0.08	1.03 $\pm$ 0.15*	1.02 $\pm$ 0.09*	0.64 $\pm$ 0.06	0.86 $\pm$ 0.07	0.54 $\pm$ 0.04	0.46 $\pm$ 0.07

\*SW-STR, SW-CEL, KAR<sub>1</sub> and MAN are abbreviations for straw-derived smoke-water, cellulose-derived smoke-water, karrikinolide and mandelonitrile, respectively.

**Appendix A: Table 6.** Mean ( $\pm$  SE) total seedling dry weight (mg, n= 3 replicates of 5 seedlings) in the control and treatments for each species considered (for species codes, see Table 1 in the article). The significance of the pairwise comparison of each treatment with the control (according to Dunnett's test) is given (\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; \*\*\*\* $p < 0.0001$ ). Values that are significantly different from the control ( $p < 0.01$ ) are indicated by boldface type.

Species codes	Control	TREATMENT						
		SW-STR	SW-CEL	KAR <sub>1</sub>	MAN	KAR <sub>1</sub> +MAN	KNO <sub>3</sub>	GA <sub>3</sub>
<b>Annual herbs</b>								
ABA	8.97 $\pm$ 1.52	11.90 $\pm$ 0.69	10.15 $\pm$ 0.44	10.08 $\pm$ 0.63	11.05 $\pm$ 0.43	10.33 $\pm$ 0.96	10.81 $\pm$ 0.74	9.89 $\pm$ 0.58
LCU	0.47 $\pm$ 0.02	0.49 $\pm$ 0.04	0.54 $\pm$ 0.03	0.58 $\pm$ 0.07	0.50 $\pm$ 0.05	0.53 $\pm$ 0.04	0.52 $\pm$ 0.04	0.49 $\pm$ 0.03
PEX	0.18 $\pm$ 0.03	0.31 $\pm$ 0.03	0.30 $\pm$ 0.04	0.25 $\pm$ 0.04	0.27 $\pm$ 0.04	<b>0.36 <math>\pm</math> 0.04**</b>	<b>0.41 <math>\pm</math> 0.04***</b>	0.26 $\pm$ 0.02
<b>Variable herbs</b>								
CFO	0.13 $\pm$ 0.02	0.14 $\pm$ 0.02	<b>0.28 <math>\pm</math> 0.03**</b>	0.23 $\pm$ 0.01	0.26 $\pm$ 0.04*	0.22 $\pm$ 0.03	<b>0.33 <math>\pm</math> 0.04***</b>	<b>0.40 <math>\pm</math> 0.02****</b>
DCA	0.41 $\pm$ 0.04	0.45 $\pm$ 0.03	0.42 $\pm$ 0.02	0.48 $\pm$ 0.04	0.48 $\pm$ 0.03	0.54 $\pm$ 0.05	0.51 $\pm$ 0.03	0.51 $\pm$ 0.04
SAS	0.33 $\pm$ 0.03	0.34 $\pm$ 0.04	0.29 $\pm$ 0.04	0.33 $\pm$ 0.05	0.31 $\pm$ 0.02	0.25 $\pm$ 0.04	0.37 $\pm$ 0.05	0.31 $\pm$ 0.03
TLO	1.69 $\pm$ 0.15	1.77 $\pm$ 0.13	<b>2.62 <math>\pm</math> 0.15**</b>	2.43 $\pm$ 0.23*	1.83 $\pm$ 0.06	<b>2.64 <math>\pm</math> 0.30**</b>	2.24 $\pm$ 0.15	2.12 $\pm$ 0.15
<b>Perennial herbs</b>								
ITI	1.97 $\pm$ 0.24	1.87 $\pm$ 0.25	1.81 $\pm$ 0.11	1.92 $\pm$ 0.26	1.94 $\pm$ 0.33	1.85 $\pm$ 0.21	1.91 $\pm$ 0.13	2.19 $\pm$ 0.22
RTU	0.49 $\pm$ 0.07	0.51 $\pm$ 0.09	0.42 $\pm$ 0.03	0.66 $\pm$ 0.04	0.67 $\pm$ 0.07	0.66 $\pm$ 0.04	0.62 $\pm$ 0.05	0.66 $\pm$ 0.03
SMI	1.44 $\pm$ 0.21	1.21 $\pm$ 0.10	1.30 $\pm$ 0.18	1.59 $\pm$ 0.13	1.31 $\pm$ 0.17	1.20 $\pm$ 0.11	1.46 $\pm$ 0.12	1.54 $\pm$ 0.09
SVU	0.74 $\pm$ 0.05	0.78 $\pm$ 0.04	0.79 $\pm$ 0.06	0.87 $\pm$ 0.05	0.78 $\pm$ 0.03	0.77 $\pm$ 0.06	0.90 $\pm$ 0.03	0.83 $\pm$ 0.04
TLE	0.86 $\pm$ 0.09	0.81 $\pm$ 0.08	1.11 $\pm$ 0.05	1.09 $\pm$ 0.10	1.11 $\pm$ 0.03	1.03 $\pm$ 0.08	1.12 $\pm$ 0.09	1.15 $\pm$ 0.11
<b>Unknown herbs</b>								
PSP	0.70 $\pm$ 0.01	0.76 $\pm$ 0.06	<b>0.76 <math>\pm</math> 0.07</b>	0.71 $\pm$ 0.04	0.71 $\pm$ 0.06	0.64 $\pm$ 0.04	0.74 $\pm$ 0.05	0.68 $\pm$ 0.04
TSP	0.36 $\pm$ 0.02	0.42 $\pm$ 0.04	0.40 $\pm$ 0.05	0.42 $\pm$ 0.02	0.39 $\pm$ 0.03	0.42 $\pm$ 0.05	0.50 $\pm$ 0.03*	0.50 $\pm$ 0.03*
<b>Woody species</b>								
CCR	0.61 $\pm$ 0.04	0.56 $\pm$ 0.02	0.52 $\pm$ 0.04	0.54 $\pm$ 0.05	0.63 $\pm$ 0.04	0.54 $\pm$ 0.04	0.55 $\pm$ 0.03	0.54 $\pm$ 0.02
LST	0.44 $\pm$ 0.03	0.46 $\pm$ 0.06	0.45 $\pm$ 0.03	0.44 $\pm$ 0.03	0.43 $\pm$ 0.03	0.45 $\pm$ 0.03	0.36 $\pm$ 0.02	0.47 $\pm$ 0.05

\*SW-STR, SW-CEL, KAR<sub>1</sub> and MAN are abbreviations for straw-derived smoke-water, cellulose-derived smoke-water, karrikinolide and mandelonitrile, respectively.