

<https://doi.org/10.17221/174/2018-HORTSCI>

# Selection of cut flower species affected promotion of flowering and stem elongation by far-red lighting or heating treatments on end of day under limited sunshine from autumn to winter

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## Electronic supplementary material

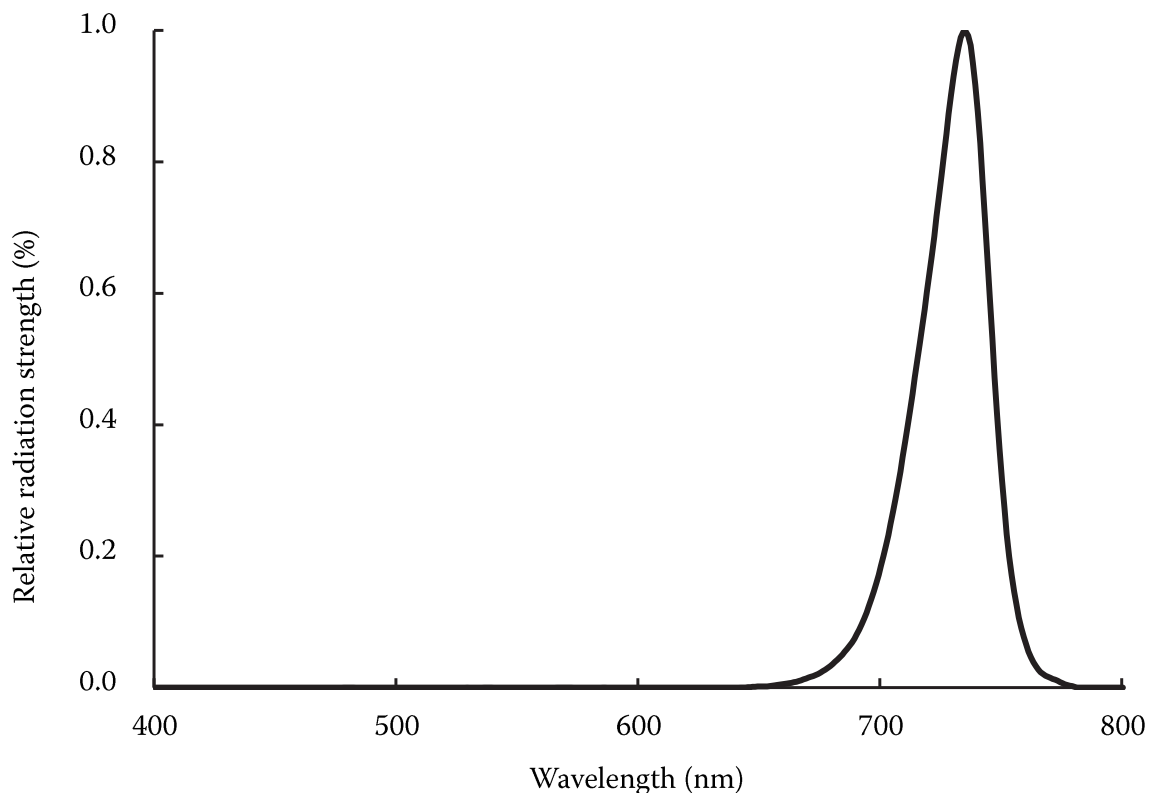


Figure S1. Spectrum distribution characteristics of light sources used to study

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Table S1. Scientific classification, company and day-length response of using plant in experiment.

Family	Genus	Cultivar	Company	Day-length response
<i>Brassicaceae</i>	<i>Brassica rapa</i>	Kanzaki No.21	Sakata Seed Corporation	long-day
<i>Brassicaceae</i>	<i>Brassica oleracea</i>	F <sub>1</sub> Winter cherry	Takii Seed Corporation	long-day
<i>Brassicaceae</i>	<i>Matthiola incana</i>	Baby white	Sakata Seed Corporation	long-day
<i>Brassicaceae</i>	<i>Lobularia maritima</i>	Easter bonnet white	Sakata Seed Corporation	long-day
<i>Asteraceae</i>	<i>Calendula officinalis</i>	Orange gem	Takii Seed Corporation	long-day
<i>Asteraceae</i>	<i>Bellis perennis</i>	Early pomponette red	Sakata Seed Corporation	long-day
<i>Plantaginaceae</i>	<i>Antirrhinum majus</i>	Snapshot yellow	M&B Flora Corporation	long-day
<i>Scrophulariaceae</i>	<i>Nemesia caerulea</i>	Rapin yellow	Sakata Seed Corporation	long-day
<i>Violaceae</i>	<i>Viola tricolor</i>	Delta premium pure golden yellow	Syngenta Corporation	long-day
<i>Solanaceae</i>	<i>Petunia hybrida</i>	Baccarat rose mome	Sakata Seed Corporation	long-day
<i>Caryophyllaceae</i>	<i>Gypsophila muralis</i>	Gypsy deep rose	Sakata Seed Corporation	long-day
<i>Caryophyllaceae</i>	<i>Dianthus chinensis</i>	Supra purple	Sakata Seed Corporation	long-day
<i>Dipsacaceae</i>	<i>Scabiosa japonica</i>	Ritz blue imp	Sakata Seed Corporation	long-day
<i>Asteraceae</i>	<i>Gazania rigens</i>	F <sub>1</sub> New day clear orange	M&B Flora Corporation	day-neutral
<i>Asteraceae</i>	<i>Senecios bicolor</i>	Silver dust	Sakata Seed Corporation	short-day
<i>Asteraceae</i>	<i>Cosmos bipinnatus</i>	Road orange	Sakata Seed Corporation	short-day
<i>Asteraceae</i>	<i>Dahlia hybrida</i>	Early bird	Takii Seed Corporation	short-day
<i>Asteraceae</i>	<i>Helianthus annuus</i>	F <sub>1</sub> Ballade	M&B Flora Corporation	short-day
<i>Asteraceae</i>	<i>Zinnia elegans</i>	Zinnita scarlet	Takii Seed Corporation	short-day
<i>Asteraceae</i>	<i>Ageratum houstonianum</i>	Top blue	Sakata Seed Corporation	short-day
<i>Balsaminaceae</i>	<i>Impatiens walleriana</i>	F <sub>1</sub> Inpureza red	M&B Flora Corporation	day-neutral
<i>Lamiaceae</i>	<i>Salvia splendens</i>	Red alert	Sakata Seed Corporation	short-day
<i>Lamiaceae</i>	<i>Solenostemon scutellarioides</i>	Gorilla Jr. Watermelon	Sakata Seed Corporation	short-day
<i>Amaranthaceae</i>	<i>Celosia argentea</i>	Kimono scarlet	Sakata Seed Corporation	short-day
<i>Asteraceae</i>	<i>Callistephus chinensis</i>	Stella rose	Sakata Seed Corporation	long-day
<i>Asteraceae</i>	<i>Gaillardia grandiflora</i>	Arizona sun	M&B Flora Corporation	long-day
<i>Asteraceae</i>	<i>Coleostephus myconis</i>	Upright yellow	Sakata Seed Corporation	long-day
<i>Asteraceae</i>	<i>Pericallis hybrida</i>	Tear blue	Sakata Seed Corporation	long-day
<i>Asteraceae</i>	<i>Rudbeckia hirta</i>	Tiger eye gold	Syngenta Corporation	long-day
<i>Lamiaceae</i>	<i>Lavandula angustifolia</i>	Elegance purple	M&B Flora Corporation	long-day
<i>Campanulaceae</i>	<i>Campanula rapunculus</i>	Suzuhime	Sakata Seed Corporation	long-day
<i>Plumbaginaceae</i>	<i>Limonium sinuatum</i>	Extra carmine rose	Sakata Seed Corporation	long-day
<i>Apiaceae</i>	<i>Ammi majus</i>	White lace flower	Miyoshi Corporation	long-day
<i>Fabaceae</i>	<i>Lupinus polyphyllus</i>	Gallery red	Takii Seed Corporation	long-day
<i>Asteraceae</i>	<i>Gerbera jamesonii</i>	Festival scarlet eye	Sakata Seed Corporation	short-day
<i>Asteraceae</i>	<i>Tagetes erecta</i>	Discovery yellow	Sakata Seed Corporation	short-day
<i>Campanulaceae</i>	<i>Isotoma axillaris</i>	Avant-garde blue	Sakata Seed Corporation	day-neutral
<i>Geraniaceae</i>	<i>Pelargonium hortorum</i>	F <sub>1</sub> Horizon lavender	M&B Flora Corporation	day-neutral
<i>Solanaceae</i>	<i>Capsicum annuum</i>	Salsa red	Takii Seed Corporation	day-neutral
<i>Apocynaceae</i>	<i>Catharanthus roseus</i>	F <sub>1</sub> Titan rose	M&B Flora Corporation	day-neutral
<i>Begoniaceae</i>	<i>Begonia semperflorens</i>	F <sub>1</sub> Sprint red	M&B Flora Corporation	day-neutral
<i>Ranunculaceae</i>	<i>Ranunculus asiaticus</i>	Mache purple	Takii Seed Corporation	day-neutral

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Table S2. Length of day and temperature on examination area during the study period (2014–2015 season)

	September		October		November		December		January		February		March		April		May	
	Early	Late	Early	Late	Early	Late	Early	Late	Early	Late	Early	Late	Early	Late	Early	Late	Early	Late
Average temperature ( °C )																		
Mean temperature <sup>z</sup>	23.1	20.4	18.9	15.2	13.6	12.9	5.7	5.3	3.9	5.5	3.7	7.3	5.0	9.9	11.4	15.3	17.2	19.6
Maximum temperature <sup>y</sup>	27.2	25.4	22.5	20.6	18.4	17.5	9.4	9.2	6.9	8.9	16.6	11.4	8.4	15.3	14.5	21.8	22.4	25.7
Minimum temperature <sup>x</sup>	19.7	16.2	15.4	10.6	9.6	8.6	2.2	1.7	1.3	2.5	3.8	3.3	1.8	4.5	8.2	8.6	11.6	13.9
Day length, sunrise and sunset times ( h:m )																		
Day length <sup>w</sup>	12:37	12:15	11:31	11:09	10:28	10:11	9:50	9:46	9:55	10:08	10:45	11:04	11:45	12:07	12:53	13:15	13:53	14:09
Sunrise time <sup>v</sup>	5:43	5:50	6:06	6:15	6:34	6:44	7:02	7:09	7:14	7:11	6:56	6:46	6:22	6:08	5:39	5:26	5:04	4:56
Sunset time <sup>u</sup>	18:20	18:05	17:37	17:24	17:02	16:55	16:52	16:55	17:09	17:19	17:41	17:50	18:07	18:15	18:32	18:41	18:57	19:05

<sup>z, y, x</sup> Cited previous meteorological data of the Japan Meteorological Agency

<sup>w, v, u</sup> Cited National Astronomical Observatory of Japan