



Forcing Perennials for Fall

Figure 1:
Passion for
Pompeii
Plug & Play
Perennial
Combination

Capitalize on the potential fall perennials have to offer.

BY SONALI PADHYE AND KARL BATSCHKE

Fall offers a novel opportunity to bring flowering perennials to market. During this shoulder season, plant selection doesn't have to be limited to pansies and mums. There is potential to capitalize on the rising interest in perennials, as we've discovered with the great success of echinacea 'Cheyenne Spirit' and coreopsis UpTick.

The two key factors for successful selling in the fall season have been: 1) Appropriate product selection, and 2) following recipes to schedule perennials to flower for a target ship week, known as forcing perennials. In this article, our goal is to arm you with tools needed to successfully force seed and vegetative perennials for fall sales.

FORCING SEED PERENNIALS

At Kieft Seed, we offer a diverse assortment of seed perennials, including more than two dozen varieties suitable for fall. Varieties with great fall performance in trials conducted by

growers as well as our own breeders include a wide range of colors and textures. For example, suitable varieties of coreopsis and gaillardia offer much-desired yellows hues; gaura and heuchera add interesting textures; and dianthus 'Rockin' Red' is a great thriller with bold color. Since forcing requirements for each of these varieties vary, a Fall Forcing Guide has been developed to aid growers (Table 1) and is available online at www.panamseed.com/culture under the perennials tab.

The Fall Forcing Guide lists the perennial series or varieties in our assortment and provides forcing information for items suitable

for Finish Week 36 to target the Labor Day market. Note that in some classes, only select varieties are suitable for fall production. For example, coreopsis Sunfire and Sunkiss are excellent fall performers, while coreopsis Early Sunrise and Sun Up do not flower profusely under the shorter daylengths of fall, and hence, are not recommended. Similarly, some dianthus series are suitable for fall due to their heat tolerance, while others are not. Please refer to the Fall Forcing Guide for suitability of a specific series or variety.

Since climates across North America vary greatly, certain regional nuances might also need to be considered to fine-tune the product assortment for your specific region. For instance, there are a handful of USDA Hardiness Zone 7 perennials listed in the guide that would not be hardy in some regions. Some climates enable dual-use of perennials as fall décor in containers and as an overwintering variety, if planted in the garden prior to frost.

Scheduling Guide for UpTick Coreopsis

Gold & Bronze and Yellow & Red make beautiful displays at retail and for consumers, and are easy to finish without PGRs. These colorful coreopsis will continue flowering long into fall, hold up to rain and frost, and provide many weeks of consumer satisfaction.

Below is the scheduling guide we have used for fall flowering of UpTick coreopsis.

Stick URC	Week 23
Pinch	Week 26
Transplant	Week 28
Retail Ready	Week 34-36



Coreopsis 'UpTick Gold & Bronze'

SOUTHWEST **AGRI-PLASTICS**, INC.



DURA-BENCH®

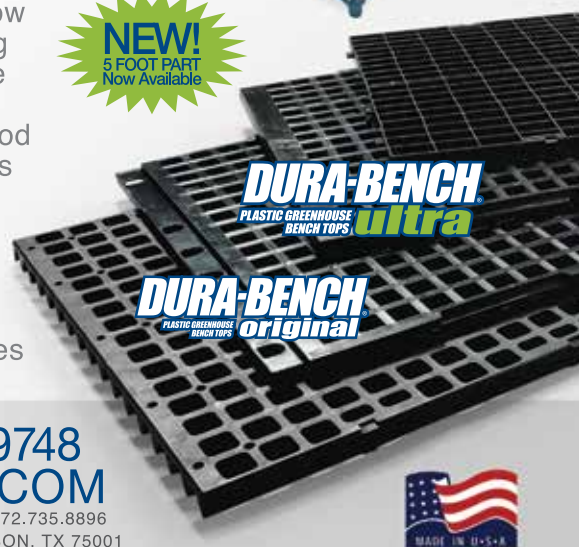
PLASTIC GREENHOUSE BENCH TOPS

Rugged Enough for the Toughest Commercial Applications...
Refined Enough for the Finest Retail Operations.



- Increased Airflow
- Easier Cleaning
- Less Expensive
- Easy To Install
- Attaches to Wood or Metal Frames
- Long Lasting
- UV Protected
- Rust Proof
- Rot Proof
- No Splinters
- No Rough Edges

NEW!
5 FOOT PART
Now Available



1.800.288.9748
SWAPINC.COM

TEL. 972.735.8866 FAX. 972.735.8896
16400 MIDWAY RD, ADDISON, TX 75001



BioWorks®

SAFE
EFFECTIVE
PROVEN



RootShield® PLUS+ ... It Checks Out



For over 20 years our customers have trusted RootShield to control diseases and promote healthy root systems - safely.

With RootShield PLUS+ you get prevention of soilborne *Phytophthora*, and improved control of hot - season *Pythium*. It also controls diseases caused by *Cylindrocladium*, *Fusarium*, *Pythium*, *Rhizoctonia* and *Thielaviopsis*.

Safer for plants, workers and the environment - RootShield PLUS+ is the right choice for organic and IPM programs.

www.bioworksinc.com

(800) 877-9443

HOW YOU
GROW
MATTERS

PRODUCTION

Having this information might appeal to some gardeners. All perennials included in the Fall Forcing Guide are first year flowering and do not need vernalization.

The Fall Forcing Guide gives a suggested sow week, plug size and plug grow weeks for each series or variety. We recommend bulking under short-day photoperiods for echinacea ‘Cheyenne Spirit’ and PowWow, lobelia Starship and rudbeckia Goldsturm. This short-day treatment is an important step to follow for success in the fall, and recommended durations for each series are included. The Fall Forcing Guide also gives finish crop time under natural daylengths and the number of plugs required for numerous pot sizes. As always, please conduct your own trials to determine the input

sizes and crop timing that are best suited to your conditions.

PLUG & PLAY PERENNIAL COMBOS FROM SEED

Plug & Play Perennial Combos can take your fall seed offering up a notch in container appeal (Figure 1). We currently offer eight Plug & Play Perennial Combos, including six suitable for fall production: Tuscan Sun, Roman Holiday, Paris in Springtime, Amazon Rain Forest, Passion for Pompeii and Sydney Sparkler. The components, planting diagrams and growing information for each of these can be found at www.panamseed.com/plugandplay. For production guidelines of each component, please refer to the Fall Forcing Guide.

FORCING VEGETATIVE PERENNIALS

Many vegetative perennials that do not require vernalization can be reliably scheduled for fall flowering. These include veronica, salvia, achillea, coreopsis, echinacea, leucanthemum and many others. In areas where summer-growing temperatures are excessive, growers may want to consider purchasing a rooted liner from a northern propagator. Also, consider starting fall flowering perennials under 30 to 50 percent shade for the first three weeks until plants are well established to reduce transplant stress.

In our finishing trials in West Grove, Pennsylvania, we consistently see finishing times from a 72-cell liner in the six- to eight-week range. Quality Labor Day-flowering

Table 1: Fall Perennial Forcing Guide for Seed Perennials

FORCING GUIDE FOR FIRST YEAR FLOWERING PERENNIALS IN NORTH AMERICA* (QUICK ANNUAL CYCLE)													
GENUS	SPECIES	SERIES/VARIETY	USDA HARDINESS ZONE	FORCING FOR FALL (WEEK 36)					PLUGS PER POT				
				IDEAL SOWING WEEK	PLUG SIZE	PLUG SD BULKING REQUIRED	PLUG GROW WEEKS	FINISH UNDER NATURAL LD AND ADT 72-75°F/22-24°C GROW WEEKS	1 QT	1 GAL	2 GAL	3 GAL (FALL)	
ARMERIA	<i>pseudarmeria</i>	Ballerina	7-9						Not recommended for Fall	-	-	-	-
CAMPANULA	<i>carpatica</i>	Rapido	3-9						Not recommended for Fall	-	-	-	-
COREOPSIS	<i>grandiflora</i>	Early Sunrise	4-9						Not recommended for Fall	-	-	-	-
COREOPSIS	<i>grandiflora</i>	Sun Up	4-9						Not recommended for Fall	-	-	-	-
COREOPSIS	<i>grandiflora</i>	Sunfire	4-9	22	128	No	6-7	7		1	1-3	3-5	4-6
COREOPSIS	<i>grandiflora</i>	SunKiss	4-9	22	128	No	6-7	7		1	1-3	3-5	4-6
DELPHINIUM	<i>elatum</i>	Guardian	4-7						Not recommended for Fall	-	-	-	-
DELPHINIUM	<i>belladonna</i>	Blue Dons	5-9						Not recommended for Fall	-	-	-	-
DELPHINIUM	<i>grandiflorum</i>	Diamonds Blue	4-9						Not recommended for Fall	-	-	-	-
DIANTHUS	<i>barbatus interspecific</i>	Rockin' Red	4-9	22	288	No	5	8		1	3	3	4
DIANTHUS	<i>barbatus</i>	Dash	6	22	288	No	5	8-9		1	1	3	4
DIANTHUS	<i>barbatus</i>	Sweet	6						Not recommended for Fall	-	-	-	-
DIANTHUS	<i>barbatus interspecific</i>	Dynasty	6	24	288	No	5	6		1	1	3	4
DIANTHUS	<i>barbatus interspecific</i>	Jolt	7	19-20	288	No	5	9-10		1	1	3	4
DIANTHUS	<i>chinensis x barbatus</i>	Corona	5						Not recommended for Fall	-	-	-	-
DIGITALIS	<i>purpurea</i>	Dalmatian	5-9						Not recommended for Fall	-	-	-	-
ECHINACEA	<i>hybrida</i>	Cheyenne Spirit	4-10	14-16	288 to 72+	Yes	11 weeks; SD from 2 to 7 true leaves	8-9		1	1	3	4
ECHINACEA	<i>purpurea</i>	PowWow	4-10	14-16	288 to 72+	Yes	11 weeks; SD from 2 to 7 true leaves	8-9		1	1	3	4
GAILLARDIA	<i>grandiflora</i>	Mesa Bright Bicolor	5-10	21	288	No	5	8-9		1	1	2	3
GAILLARDIA	<i>grandiflora</i>	Mesa Yellow	5-10	19	288	No	5	10-11		1	1	2	3
GAILLARDIA	<i>grandiflora</i>	Mesa Peach	5-10						Not recommended for Fall	-	-	-	-
GAILLARDIA	<i>grandiflora</i>	Mesa Red	5-10	21	288	No	5	8-9		1	1	2	3
GAURA	<i>lindheimeri</i>	Sparkle White	5b-9	22	288	No	4	7-8		1	1	3	4
HEUCHERA	<i>micrantha</i>	Palace Purple	4-7	15-16	128	No	8	10-11		1	3	4	5
HEUCHERA	<i>hybrida</i>	Melting Fire	5-8	12-14	128	No	9-11	12-13		1	3	4	5
HIBISCUS	<i>moscheutos</i>	Luna	5-9	21	128	No	4	9-10		1	1	1	1
LAVANDULA	<i>angustifolia</i>	Ellagance Purple & Pink	5-8						Not recommended for Fall	-	-	-	-
LAVANDULA	<i>angustifolia</i>	Lavance Deep Purple	5-8	20	128	No	6	8-9		1	3	4	5
LAVANDULA	<i>stoechas</i>	Bandera	7-10						Not recommended for Fall	-	-	-	-
LOBELIA	<i>speciosa</i>	Starship	6-10	14-16	288	Yes	9-10 weeks; 10-hour SD to 6 true leaves	10-11		1	1	3	4
ORIGANUM	<i>hybrida</i>	Kirigami	5b-9	19-20	128	No	5	10-11		1	1	3	-
PENSTEMON	<i>mexicali</i>	Carillo	5-7						Not recommended for Fall	-	-	-	-
PEROVSKIA	<i>atroplicifolia</i>	Blue Steel	4-9	19-20	128	No	6-7	9-10		1	3	4	5
RUDBECKIA	<i>fulgida</i>	Goldsturm	3-9	8-9	288 to 50+	Yes	14 weeks; SD from 2 to 10 true leaves	12-13		-	1	1	3
SALVIA	<i>nemorosa</i>	New Dimension	4-8						Not recommended for Fall	-	-	-	-
SALVIA	<i>patens</i>	Patio	8-10						Not recommended for Fall	-	-	-	-
SCABIOSA	<i>columbaria</i>	Blue Note	5-9						Not recommended for Fall	-	-	-	-
SCABIOSA	<i>japonice</i>	Pink Diamonds	5-9						Not recommended for Fall	-	-	-	-
VERBENA	<i>bonariensis</i>	Buenos Aires	7-9	18-19	128	No	8	10-11		-	1	2	3
VERBENA	<i>rigida</i>	Santos Purple	7-11	19-20	128	No	8	9-11		1	1	2	3

Additional culture info online panamseed.com/culture
+1 530 231-1400

SD = Short Day (12 hours or shorter, except Lobelia is 10 hours) LD = Long Day ADT = Average Daily Temperature
* Schedule indicated is based on Midwest Region of the United States trial data and may change based on your local/regional climate. Please trial to re-confirm finish crop times before beginning commercial production. ** If yes, supplemental long day lighting should start after transplanting until visible bud or visible knot stage.

© 2017 Ball Horticultural Company 17267-REV FALL
denotes a registered trademark of Ball Horticultural Company in the U.S. It may also be registered in other countries. Visit panamseed.com for current Terms & Conditions of Sale.

perennials can be planted in Week 28 for a Week 36 finish. Our 2016 scheduling trial results can be found online at www.darwinperennials.com/culture.

Fall is a great time to establish perennials in the garden in regions where USDA Hardiness Zone is 6 or higher. In these areas, plant root systems have time to develop before short days and cold temperatures settle in and therefore overwintering reliability increases. For regions Zone 5 and colder, establishment time is more restricted and perennials planted after mid-August may struggle to establish before frost. In these colder northern regions,

perennials serve as wonderful textural and color palette additions to fall porch and patio decorating right alongside mums and other traditional fall flowering plants.

Whether used as new additions to a perennial garden, or colorful accompaniments to porch and

patio decorating, perennials provide long-flowering and frost-hardy alternatives for growers, retailers and consumers. New varieties and cultural research provide growers with all the tools necessary for successful fall perennial programs. *gpn*

Sonali Padhye is technical services manager for PanAmerican Seed and Kieft Seed. Karl Batschke is global product manager for Darwin Perennials. For more information, go to www.panamseed.com or www.darwinperennials.com.

Availability. Reliability. Selection.



Need a supplier of starter plants for perennials, succulents, and ornamental grasses? We make the choice easy.



40/40 Celebrating the next generation of horticulture

**THANK YOU
TO ALL OF OUR 2017
40 UNDER 40 SPONSORS**



IN A CLASS OF THEIR OWN



WWW.GPNMAG.COM

24/7 Live Availability & Online Ordering
ECGROWERS.COM | 1.877.804.7277