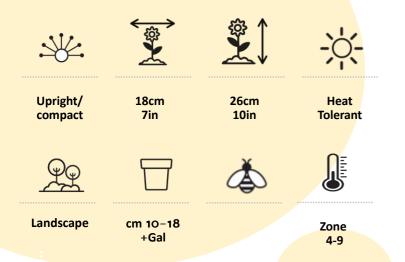
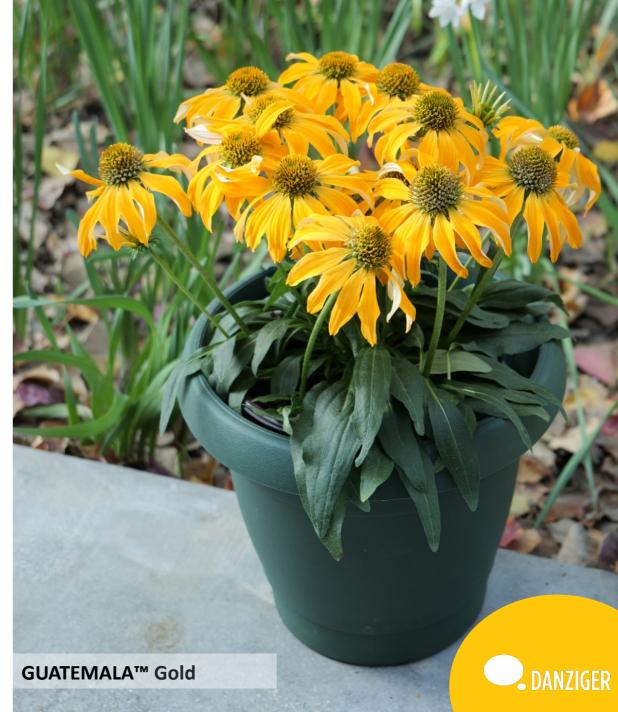
GUATEMALA[™]



Echinacea

- •First year Flowering, no vernalization or bulking required
- •The 2nd URC Echinacea in the market (1st is the Danziger Panama[™] Red)
- •Early blooming weeks 22 to 24
- Everlasting flower power
- Great hardiness
- Suitable for fall programs





The GUATEMALA™ Series





Guatemala ™ Gold



PANAMATM



Echinacea

- •First year Flowering, no vernalization or bulking required
- •The 1st URC Echinacea in the market, Early blooming weeks 22 to 24
- Everlasting flower power
- Great hardiness
- Suitable for fall programs











Upright/ compact

20cm 8in

30cm 12in

Heat **Tolerant**









Landscape

cm 10-18 +Gal

Zone 4-9



The PANAMA ™ Series







PANAMA™ Neon Pink

ECH-Z-79



PANAMA™ Yellow

ECH-Z-80



PANAMA™ Rose



PANAMA™ Red



Echinacea hybrid





Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide	
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking	
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2	



PROPAGATION TIPS

Irrigation specification – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



K-IBA spray application will hasten and even rooting response. Echinacea Panama™ are long day flowering with the natural flowering response being June (facultative long day plant).

12-14 hour daylength and warm temperatures are required during propagation

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Required 12 hr daylength		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicid e app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 18° - 20° C (65° - 68° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.90 to 1.0	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		1500 to 2000 ppm Daminozide



Echinacea hybrid

- No pinch should be needed
- Spray for bacterial leaf blights

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator	
10 to 12 wks	Average Day	Pinch is not			
15 cm (1 gallon) 1 ppp	(20°C)	required- only to cut the flower buds from the top (but not the whole stem). Extend daylength to 12 hours for early flowering	100 - 150 ppm N	Daminozide spray application @ 2000 – 2500 ppm	
10 to 12 wks					
19 cm (2 gallon) 1 ppp	3 plants per container		Soil EC 0.8 - 1.2 pH 5.8 to 6.2		



- Long Day Flowering Response Natural flowering time is weeks 22 24
- Maintain warm temperatures during finishing at 20° C (68° F) average daily temperature to allow continued growth and progression of new leaves
- PGR Spray Daminozide at 2000 to 2500 ppm if needed
- Maintain good airflow and allow plants to dry before nightfall/spray for bacterial leaf blights
- <u>Drench</u> after transplant for Rhizoctonia and Pythium / Phytophthora

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
rests	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
Diseases	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	20° - 21°C (68°- 70° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	0.8 to 1.2	20° - 21°C (68°- 70° F)	feed 100 to 150 ppm			Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights

