



# GrowerFacts Extra African Marigold Marvel II™

Additional Culture Research  
from

PanAmerican Seed®

# African Marigold Marvel II™

Photoperiod Response, published 2020

PanAmericanSeed®

## OBJECTIVE

To find out how this improved series responds to day length.

## MATERIALS AND METHODS

- Sown date: 5/22/18 (week 21)
- Plug tray size: 288
- Plug daylength: Natural LD about 15 hours
- Plug PGR: Alar (B9) 5000ppm 2x
- TP date: 6/14/18 (week 24)
- Container size: Quart
- PGR: None
- Daylength treatments: 10, 12, 13, 14, 16, NI, NLD (15:11 -14:14)
- Environmental conditions: ADT=77F/25C, DLI=10.6 mol·m<sup>-2</sup>·d<sup>-2</sup>



Marvel II Gold

# African Marigold Marvel II™

Photoperiod Response, published 2020

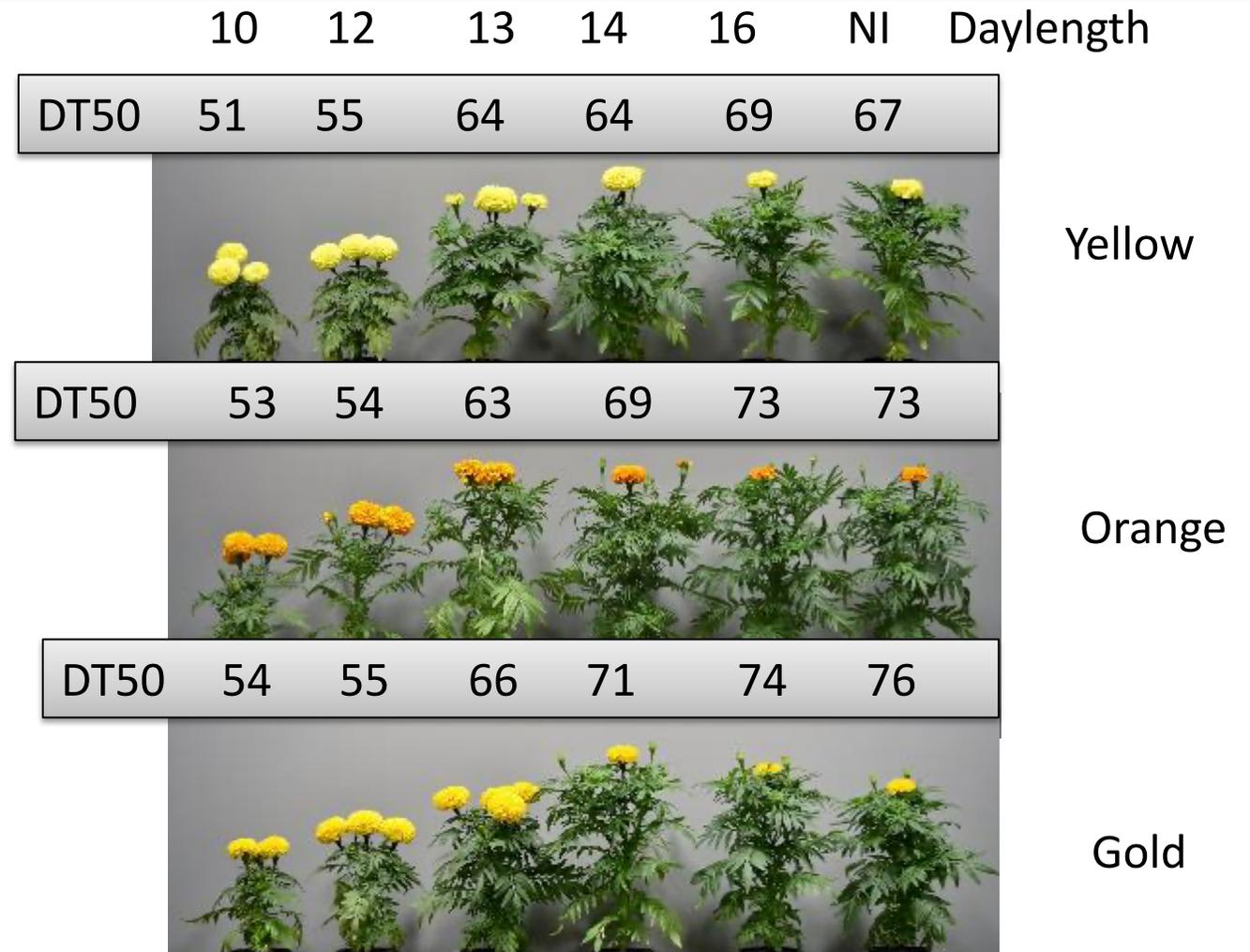
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## ANNUALS

### RECOMMENDATION

- Marigold Marvel II series is a facultative short day plant with critical daylength about 13 hours

\*DT50 means days to 50% flower from sowing.



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## ANNUALS

	10	12	13	14	16	NI	Daylength
DT50	54	55	66	71	74	76	



Marvel II Gold

DT50	54	56	69	77	79	79	
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Marvel Gold

	10	12	13	14	16	NI	Daylength
DT50	53	54	63	69	73	73	



Marvel II Orange

DT50	48	54	66	78	77	79	
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Marvel Orange

\*DT50 means days to 50% flower from sowing.



# African Marigold Marvel II™

Limited Inductive Photoperiod Response, published 2020

PanAmericanSeed®

## INTRODUCTION

To find out if limited short day (SD) exposure during plug stage will affect subsequent flowering under long day (LD) conditions.

## MATERIALS AND METHODS

- Sow date: 5/22/18 (week 21)
- Plug tray size: 288
- Plug daylength treatment:
  - 10SD: 10 days exposure to 10 hour short days starting at 1.5 weeks after sowing
  - OSD: Without short day treatment. Continually grown under natural daylength about 15 hours
- Plug PGR: B9 5000ppm 2x
- TP date: 6/14/18 (week 24)
- Container size: Quart
- Plant PGR: None
- Daylength after transplant: Natural Daylength
- Environmental conditions: ADT=77F/25C, DLI=10.6 mol·m<sup>-2</sup>·d<sup>-2</sup>



Marvel II Orange

# African Marigold Marvel II™

## Limited Inductive Photoperiod Response

PanAmericanSeed®

### ANNUALS

#### RESULTS

10 days of short day treatment significantly sped up flower timing for Marvel II Gold and Orange. However, Marvel II Yellow flower buds aborted after stopping short day induction and may need longer. We would recommend using 14 short days with Marvel II Yellow.

#### RECOMMENDATION

- Plug tray size: 128-cell to allow total 4 weeks of plug time
- 14 days of short day treatment starting from 2 weeks after sowing
- Flowered approximately 2 weeks earlier and about 10 to 15 cm shorter than those grown under natural long day conditions.

5 Weeks After Transplant



0SD

10SD