# ATI 2019 EXPERIMENTAL CALLISTEPHUS LARGE SIZE MUM FLOWER OBSERVATIONS BY: ROSA ROCHA



#### INTRODUCTION:

3 COLORS OF LARGE SIZE FLOWER CALLISTEPHUS WERE TESTED AT THIS LOCATION TO EVALUATE THEIR ATRIBUTES COMPARED TO COMPETITORS VARIETIES AS CONTROL / COMPARISON.

IN MY OPINION THESE NEW MUM TYPE FLOWER WILL CREATE A NEW SUCCESFULL SERIES

#### **CONDITIONS OF THE TRIAL:**

- EVALUATION SITE: ATI, SALINAS, CALIFORNIA
- > SALES GREENHOUSE 5: PLASTIC COVER, NO SHADES OR SUPLEMMENTAL LIGHT
- ➤ SOW DATE: WEEK 20 TRANSPLANT DATE: WEEK 23
- PLUG SIZE: 200 CELLS TRAY
- > AVERAGE TEMPERATURE DURING GERMINATION: 75F (24C)
- ➤ AVERAGE TEMPERATURE DURING VEGETATIVE GROWTH: 71F (22C)
- > HIGH: 120F (48C) LOW: 51F (10C)
- > GROWING MEDIA: NATIVE SOIL, HIGH IN CLAY
- ➤ CONSTANT FEEDING 21-7-7 (150 PPM N)
- DRIP IRRIGATION SYSTEM.
- > PLANT DENSITY: 6" x 6" (15cm X 15cm)



#### **DATA COLLECTED:**

- ➢ GERMINATION %
- > TIME TO FIRST FLOWER
- > 50 % COLORING TIME (WEEKS AFTER SOW)
- ➤ 100 % COLORING TIME (WEEKS AFTER SOW)
- HEIGHT (CENTIMETERS)
- ➤ STIFFNESS: 5 1
- ▶ BRANCHING HABIT: 5 1
- ➤ VIGOR: 5 1
- ➤ LEAF QUALITY: 5 1
- ➤ UNIFORMITY OF PLANTS (GROWTH HABIT): 5 1
- DISEASE: YES / NO
- ➤ PETAL: 5 1
- > FLOWER SIZE: CENTIMETERS
- ➤ COLOR UNIFORMITY: 5 1
- ➤ HARVEST UNIFORMITY: 5 1

#### **VARIETIES TESTED:**

- Callistephus Chinensis < Aster > Cut Type Large Size Mum Flower DEEP PURPLE
  EA589
- Callistephus Chinensis < Aster> Cut Type Large Size Mum Flower RED
  EA590
- Callistephus Chinensis < Aster> Cut Type Large Size Flower BLUE
  EA591
- Callistephus <Aster> BONITA RED
- Callistephus < Aster> BONITA SCARLET
- Callistephus <Aster> BONITA BLUE
- Callistephus <Aster> MATSUMOTO SCARLET
- Callistephus <Aster> MATSUMOTO BLUE

# **RESULTS**

TYPE	NAME	SERIES	COLOR	E CODE	PLUG SIZE	GERM %	Sow week 5/13/1 9	TR Week	Finish week	Color Time Weeks after sow	Peak Harvest weeks after sow	Height cms		Shape of plant			Flower color Speed 5 - 1	VIGOR 5 - 1	Color unifor mity 5-1	Har vest unifor mity 5-1	Final score 5-1
		Cut Type Lg	Deep																		
С	Callistephus	size Mum	Purple	EA589	200	30%	20	23	34	12	14	78	55/70	5	5	4	4	5	5	5	5
С	Callistephus	Cut Type Lg size Mum	Red	EA590	200	58%	20	23	33	12	13	78	59/80	5	4	5	5	5	5	5	5
С	Callistephus	Cut Type Lg	Blue	EA591	200	31%	20	23	34	13	14	84	75/90	5	4	3	4	5	5	4	4
	Callistephus		Scarlet	L/1001	200	90%	20	23	33	12	13	78	45/60	3	3	3	3	3	3	3	3
	Сатосорнао	Domita	Counct		200	3070					10		10/00								
С	Callistephus	Bonita	Blue		200	40%	20	23	33	12	13	84	43/54	3	3	3	3	3	3	3	3
С	Callistephus	Matsumoto	Scarlet		200	80%	20	23	34	13	14	70	58/65	3	3	3	3	3	3	3	3
С	Callistephus	Matsumoto	Blue		200	70%	20	23	33	12	13	66	40/55	3	3	3	3	3	3	3	3

# **PICTURES TAKEN: 7/28/2019**



## **PICTURES TAKEN: 8/18/2019**



## **PICTURES TAKEN 8/21/2019**



#### **FLOWER SIZE COMPARISON**



#### PICTURES TAKEN 8/21/2019



#### FLOWER SIZE COMPARISON



## **PICTURES TAKEN: 8/22/2019**



## **PICTURES TAKEN: 8/22/2019**

#### FLOWER SIZE COMPARISON



# **GARDEN PERFORMANCE: 8/28/2019**



#### **CONCLUSIONS:**

- It was difficult to compare these new Large Flower Mum Type Callistephus to Bonita and or Matsumoto.
- They are unique and the size of the flower as well as the petal density makes them fall into a separate category.
- In the greenhouse the side branches showed to be a little thin for this crop cycle at this location. In some cases not strong enough to hold the flower.
- ➤ This condition could be related to the high temperatures experienced lately and maybe more Nitrogen than needed.
- ➤ The plants in the Garden are doing much better regarding the vigor of the stems and branches, but they are shorter.
- ➤ In the case of EA591 Blue, I only put Bonita as comparison, Matsumoto looked very small to be compared with these kind of Large Flower Callistephus.
- > EA589 DEEP PURPLE shows to be later by a week to enter in color
- > EA591 Has the bigger flowers, even when compared to the Red and Deep Purple.
- No pests or diseases were present for this crop cycle at this location.
- Overall I like them, they have a strong Growth Habit and the Branching is more abundant than Bonita, Matsumoto or Fujimi.