

EFFECTS OF GIBBERELLIC ACID (GA3) DIFFERENT CONCENTRATION TREATMENTS ON 'CALICO' AND 'SAMBO' F1 GLOBE ARTICHOKES



Joaquín Parra, Manuel Ortiz, Julio García and Julián Bartual

Estación Experimental Agraria de Elche (S.T.T). Ctra a Dolores CV-855, km. 1, 03290 ELCHE (Alicante, Spain)

INTRODUCTION

Globe artichoke cv 'Calico' (late and big size cultivar, vegetatively propagated) as some very similar hybrids to this type as Sambo^R F1 (Nunhems) a seed-propagated cultivar, are cultivated in eastern Spain mainly for export purposes. In this context, it is very interesting for Spanish producers to send earlier head artichokes to the European markets than other productive areas. Gibberellic acid (GA3) is registered for use in artichoke production to accelerate maturity and shift the first harvest to an earlier date.

The aim of this work was to determinate in 'Calico' and Sambo F1 optimum sprayed concentration of Giberellic Acid on promoting earlier harvest and their effect on quality and yield.

MATERIALS AND METHODS

- The experiment was carried out in Elche (Spain) in 2015-2016. Plantation was made last week of July in single row of plants, in-row spacing of 67 X 180 cm.
- Treatments started when plants had 7-8 leaves. Plants were treated three times (three pulverizations, spaced 14 days) with three concentration of GA3 (30, 60 and 120 ppm) and control. Heads were harvested weekly

RESULTS

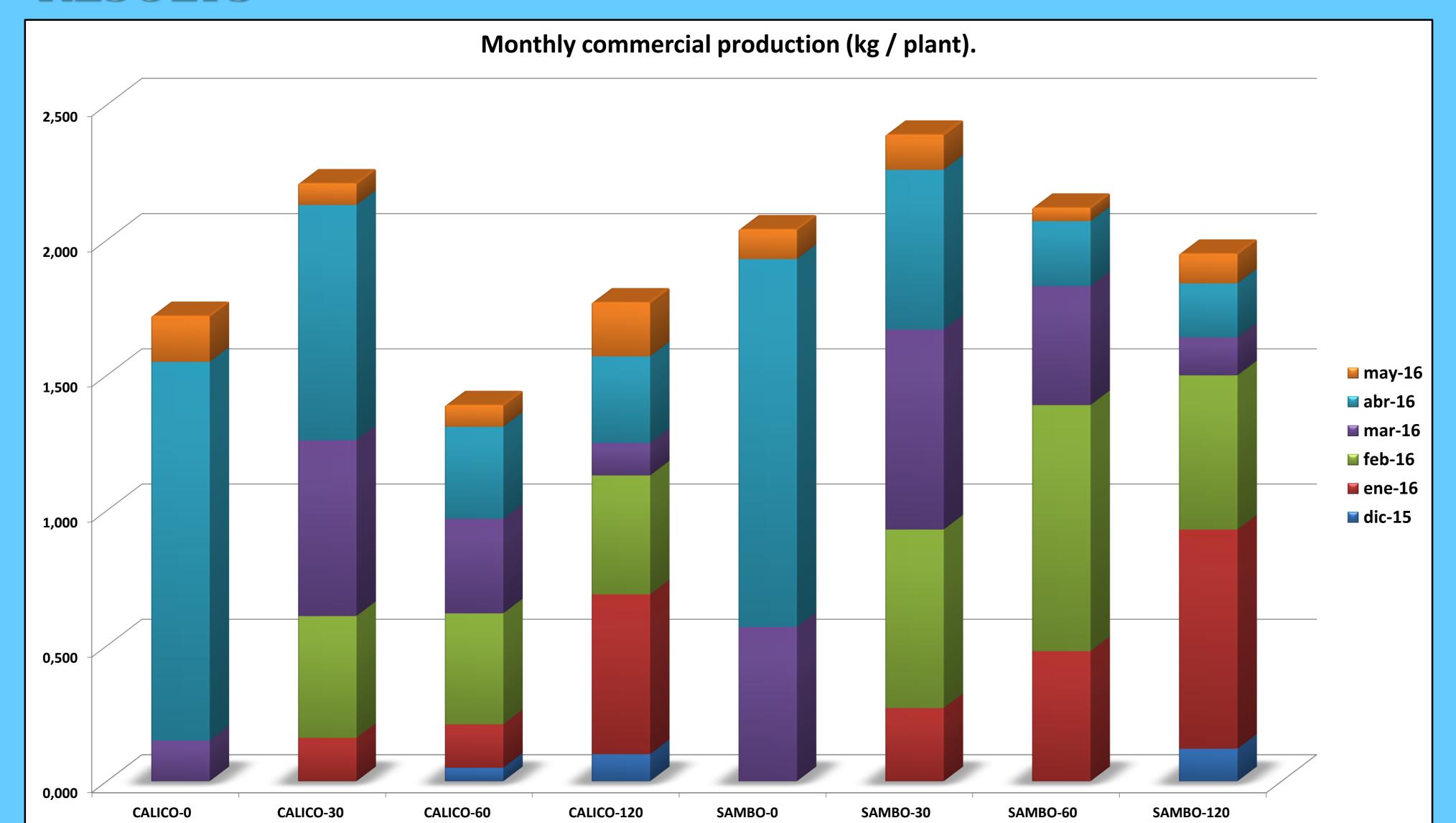




Fig 3. Treatments started when plants had 7-8 leaves



Fig 4. 'Sambo F1' plants in the experimental site.

- Precocity was directly correlated with the dosis of GA3.
- Bigger size and percentage of first quality was observed in control and 30 ppm.
- Taken into account precocity, results suggested 30 ppm for 'Calico' and 60 ppm for 'Sambo F1 'as the most recommendable dosis.
- The total cumulative yield at the end of cycle was significantly higher in 'Sambo F1'.

Treatment	weight (g)
CALICO-0	284,10 a
CALICO-30	243,72 b
SAMBO-0	231,29 bc
SAMBO-120	214,98 c
CALICO-120	214,82 c
CALICO-60	214,03 c
SAMBO-60	212,02 c
SAMBO-30	208,69 c
CV	4,53
MDS	24,40





Fig 5. Excessive elongation of plants at 60 and 120 ppm lead to a reduction in the ability of some samples to hold the plant in upright.