

B'CUZZ® BLOOM-PRUINE increases yield

3rd PARTY
TESTED
INNEXO
ADVANCING MOLECULAR FARMING

36%
INCREASED DRY
FLOWER WEIGHT



INTRODUCTION

ATAMI is a premium plant nutrition & substrate brand founded in 1997 with the mission to let cultivators achieve maximum results in quality, taste and yield.

INNEXO is a renowned independent agricultural research company with expertise on molecular farming, cannabis and other medicinal plants. Independent trials are a critical step towards developing new and improved products, but also to scientifically validate ATAMI's current products.

In this trial at Innexo, the effect of Atami's B'cuzz Bloom-Prune on yield was evaluated. Bloom-Prune is an additive, that increases flower formation and bulking of the flowers, which will lead to an increase in yield. As basic nutrients, a competitor product line was chosen, that consist of 3 parts (A, B & C), also known as '3-part powder'. Each part can be separately dosed to make a balanced nutrient solution depending on each growth phase. Choosing a competitor as base nutrients, evaluates Bloom-Prune without impact of other Atami products. Half of the plants received the treatment with Bloom-Prune and the other half would act as a control group.

The results were significant.

The results were significant. B'cuzz Bloom-Prune increased dry flower yield by **36%**, cannabinoid yield by **25%** and terpene yield by **18%**.

MATERIALS AND METHODS

GROWING CONDITIONS:

	CLONE	VEGETATIVE	GENERATIVE
VARIETY	Pre98 Bubba Kush x Strawberry Cough	Pre98 Bubba Kush x Strawberry Cough	Pre98 Bubba Kush x Strawberry Cough
TIME	10 days	14 days	48 days
SUBSTRATE	Grodan Stonewool Plugs	Grodan Stonewool Hugo Blocks	Grodan Stonewool Hugo Blocks
NUTRIENT	Clone blend pH 5.8 EC 1.0 mS/cm	3-Part Powder pH 5.8 EC 1.9 mS/cm	3-Part Powder pH 5.8 EC 2.8 mS/cm
TEMP	26 °C (day) 25 °C (night)	26 °C (day) 25 °C (night)	26 °C (day) 22 °C (night)
RELATIVE HUMIDITY	90%	75%	65%
CO2	600 ppm	700 ppm	900 - 1000 ppm
LIGHT	18 hrs (50-100 PPF)	18 hrs (300 - 400 PPF)	12 hrs (700-900 PPF)
IRRIGATION	1 time soak	Handwatering day 8 & 12	700 ml - 1200 ml per plant per day



Photo1: Flowerbud of the untreated control



Photo 2: Flowerbud of the plant treated with Bloom-Prune(1 ml/l)

PREPARING NUTRIENT SOLUTION:

A well known 3-part powder fertiliser was used:

- A) NPK 14-0-0 + 24 CaO + TE**
B) NPK 2-8-20 + 5 MgO + 20 SO₃ + 0,1 Fe
C) NPK 0-12-24 + 5 MgO + 22 SO₃ + 0,1 Fe

First each part (**A, B & C**) needs to be dissolved to create a stock solution (240 g of powder to 1 Liter of reverse osmosis water). Then each stock solution can be dosed in reverse osmosis water to create the final nutrient solution.

In the vegetative phase **3,4 ml/l** of stock solution **A** and **5,8 ml/l** of stock solution **B** was dosed to reverse osmosis water as a base nutrient solution (EC 1,9 mS/cm).

In the generative phase **5,2 ml/l** of stock solution **A** and **8,6 ml/l** of stock solution **C** was dosed to reverse osmosis water as a base nutrient solution (EC 2,8 mS/cm). Phosphoric acid was used when necessary to set the pH of the base nutrient solution to 5,8.

During generative phase half of the plant were fertigated with base nutrient solution. The other half were fertigated with **1 ml/l** of **Bloom-Prune** added to the nutrient solution.

NUTRIENTS PER LITER OF NUTRIENT SOLUTION:

	mmol/l	NO ₃ ⁻	NH ₄ ⁺	H ₂ PO ₄ ⁻	k ⁺	Ca ²⁺	Mg ²⁺	SO ₄ ²⁻
VEGETATIVE	9,5	0,7	1,8	6,4	3,4	2,6	4,2	
GENERATIVE	11,7	1,0	4,6	10,5	5,2	4,0	7,6	

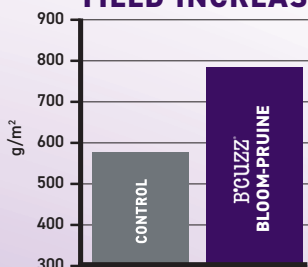
Table 1: Primary and secondary nutrients available in mmol per Liter of base nutrient solution during the vegetative phase and the generative phase.

	µmol/l	B	Cu	Fe	Mn	Mo	Zn
VEGETATIVE	37,7	4,4	38,2	12,0	0,8	4,3	
GENERATIVE	55,2	6,6	58,5	16,4	1,4	6,1	

Table 2: Micronutrients present in µmol per Liter of base nutrient solution during the vegetative phase and the generative phase.

RESULTS

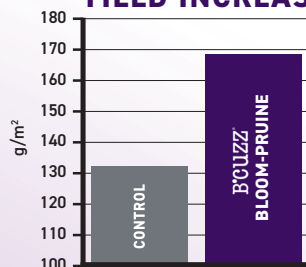
DRY FLOWER YIELD INCREASE



Graph 1: Yield of dry flower in g/m² of the non-treated plants (Control) and the treated plants (Bloom-Prune).

36%

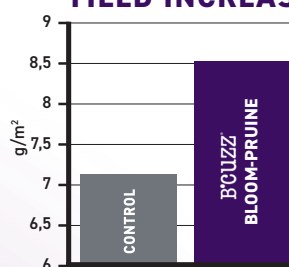
CANNABINOID YIELD INCREASE



Graph 2: Yield of cannabinoids in g/m² of the non-treated plants (Control) and the treated plants (Bloom-Prune).

25%

TERPENE YIELD INCREASE



Graph 3: Yield of terpenes in g/m² of the non-treated plants (Control) and the treated plants (Bloom-Prune).

18%

Adding B'cuzz Bloom-Prune (1 ml/l) during the generative phase increased **dry flower yield** of the cultivar by **36%** compared to the control.

This increased the yield of **cannabinoids** by **25%** and the yield of **terpenes** by **18%**.

ATAMI®

NATURALLY INNOVATING