



Chu's Medium No. 10

M697

Chus Medium No. 10 is used for culturing blue green algae.

Composition**

Ingredients	Milligrams / Litre
Calcium nitrate	40.000
Magnesium sulphate	25.000
Dipotassium phosphate	5.000
Sodium carbonate	20.000
Sodium silicate	25.000
Iron Chloride	8.000

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 123 mg in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

Principle And Interpretation

Soil algae are ubiquitous in nature wherever moisture and sunlight are available. They are visible to the unaided eye in the form of a green slum on the surfaces of soils. Morphologically, they may be unicellular or filamentous and belong to the families *Chlorophyceae* (green algae) and *Cyanophyceae* (blue-green algae) (1).

Cyanobacteria is a phylum (or "division") of bacteria that obtain their energy through photosynthesis. They are often still referred to as blue-green algae, although they are in fact prokaryotes like bacteria. They are a major primary producer of the planetary ocean. They are found in almost every conceivable habitat, from oceans to fresh water to bare rock to soil. Chus Medium No. 10 is formulated as per Chu for cultivation of blue green algae (2).

Calcium nitrate serves as inorganic nitrogen source and other inorganic salts supply the necessary growth requirements.

Quality Control

Appearance

White to light yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Colourless clear solution

Cultural Response

M697: Cultural characteristics observed under tungsten lamp, after an incubation at 25-30°C for 10-15 days.

Organism	Growth
<i>Anabena cylindrica</i>	good
<i>Anacystis nidulans</i> ATCC 27344	good
<i>Plectonema boryanum</i> ATCC 18200	good

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

Reference

1. Subba Rao N. S., 1997, Oxford and IBH Publishing Co., India.
2. Chu S. P., 1942, J. Ecol., 30, 284-325.

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