

Title (en)  
AUTOMATED ISOTHERMAL GREENHOUSE DEVICE FOR MULTIPLE SOILLESS CULTURE METHODS, AND SPECIFICALLY, THE DAILY (365 DAYS A YEAR) PRODUCTION OF HYDROPONIC GREEN FODDER FOR FEEDING ANIMALS

Title (de)  
AUTOMATISIERTE ISOTHERMISCHE GEWÄCHSHAUSVORRICHTUNG FÜR MEHRERE ERDLOSE ZUCHTVERFAHREN, SPEZIELL FÜR DIE TÄGLICHE (365 TAGE IM JAHR) HERSTELLUNG VON HYDROPONISCHEN GRÜNFUTTER ZUM FÜTTERN VON TIEREN

Title (fr)  
DISPOSITIF DE SERRE ISOTHERME AUTOMATISÉE POUR PROCÉDÉS DE CULTURES HORS-SOL MULTIPLES, ET PLUS PARTICULIÈREMENT, LA PRODUCTION QUOTIDIENNE (365 /J) DE FOURRAGE VERT HYDROPONIQUE POUR L'ALIMENTATION ANIMALE

Publication  
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Application  
**EP 16865818 A 20161116**

Priority  
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Abstract (en)  
[origin: WO2017084679A2] The invention relates to a hydroponic culture device, for soilless culture, which is a smart, isothermal, automated greenhouse for multiple hydroponic culture methods, and specifically for the daily (365 days a year) production of hydroponic green fodder (fresh grass) for feeding animals, from local barley seeds. The automated hydroponic culture device is provided with an atmospheric control unit pre-programmed in accordance with atmospheric conditions which are necessary and adequate for the product that is to be cultured; the set of instruments is connected to probes and sensors distributed around the culture space in relation to the technical operating features thereof and the ranges thereof. The device in question proposes ergonomic innovations for improved functionality. These innovations relate to a novel ventilation system, essentially made up of two elements operating in synergy: 1) the structure of two curved, aerodynamic side walls, which satisfies a functional requirement, that of facilitating and maximising the oriented circulation of the airflow movements, in order to ventilate and cover the entire inside space; 2) the system is also made up of a plurality of series of internal fans arranged according to a segmentation of the space, so as to operate as alternating series in order to distribute the necessary large operating load 24/7 and in order to also alternate the changes in orientation of the airflows in the two opposing directions and on both the horizontal and vertical axes, each time by one of the series of fans that make up the system. This internal ventilation is one of the essential elements for indoor hydroponic culture, for dealing with the causes that promote the appearance of fungi and mildew in this environment, such as air stagnation in the culture space. For this reason, we have chosen a mechanical solution which is built into the actual structure.

IPC 8 full level  
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CPC (source: EP)  
**A01G 9/246** (2013.01); **A01G 31/00** (2013.01); **Y02A 40/25** (2017.12); **Y02P 60/21** (2015.11)

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• [XII] US 2009031621 A1 20090205 - KITAGAWA KATSUYUKI [JP]  
• See references of WO 2017084679A2

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