

University:Assiut UniversityCountry:EgyptWeb Address:www.aun.edu.eg

## The existence of a mechanism to rationalize water consumption on campus

Through the Department of Parks and Colleges, university developed a plan to rationalize the use of tap water, which included several axes:

- 1- Periodic passage on all health devices is carried out through the maintenance units of colleges and administrative buildings of the central maintenance to ensure that there is no leakage and to address this first-hand.
- 2- Initiating a request to purchase water meters for places that do not have water meters in order to estimate the actual value of consumption for each place and know the extent to which water rationalization occurs by knowing the difference between meter readings every month and addressing the differences in the reason for the difference in readings from month to month. Which helps the university administration to take corrective readings to rationalize consumption.
- 3- The university's gardens are irrigated with modern spraying techniques through a direct line from the Ibrahimia Canal away from the drinking water network.
- 4- Faculty of Agriculture is distinguished among the faculties of the university by owning three research farms and large productivity with a total area of 340 acres, so it is one of the highest faculties in water consumption, as it is known that agriculture consumes 83% of water resources in the irrigation process. Despite the large amount of water used for irrigation, the Faculty of Agriculture uses programs to rationalize water consumption in the college's farms and on campus.
- The college farm in Assiut is located next to the university from the western side and its area is about 68 acres after deducting the built

areas from it. All the lands of this farm are heavy clay lands so it is not recommended to use drip irrigation and sprinkler methods with them and currently developed surface irrigation methods are used. There are some areas that drip irrigate, part of which is in the farm of the Department of Land and Water and another part in the vegetable farm, but all these spaces are research experiments for graduate students and faculty members in the field of rationalizing water consumption with different techniques. The rest of the farms of the different sections of that farm vary between irrigation in lines, irrigation in pipes and irrigation in small basins, all of which are developed surface irrigation methods that raise the efficiency of water use and rationalize its consumption.

- The extension farm in the Assiut Valley is about 200 acres, which is a modern sandy land of which about 80 acres have been cultivated and modern irrigation methods such as sprinkler irrigation and drip irrigation are used to rationalize water consumption in them. Due to the high costs of establishing modern irrigation networks, work is underway to gradually install modern irrigation networks that increase in area annually. As for the rest of the cultivated area, it is irrigated by developed surface irrigation methods, and to further rationalize water consumption in those areas, a large area of it has been retained. The work of replacing and renewing traditional irrigation methods is carried out annually with modern irrigation methods, as it is intended to irrigate the entire area of this farm by sprinkler and drip irrigation methods.
- Al-Gharib Farm in Sahel Salim Center Assiut Governorate The area of this farm is about 180 acres and all of them are lands with a sandy loam texture and the entire area is planted with fruit trees and field

crops and alfalfa and allocated large areas for seed production and all the lands this farm are irrigated by traditional irrigation methods and the target is to use surface irrigation methods developed on all the area in



of

this farm and this system is currently applied in fruit farms.





Examples of by some conserve

measures taken colleges to water

• FACULTY OF EDUCATION

The gardens and green areas of the college are irrigated by guided sprinkler in order to save water as much as possible.

A committee emanating from the Community Service and Environmental Development Committee has also been formed to follow up the rationalization of water consumption in the college and write periodic reports to be discussed in the monthly meeting of the Community Service and Environmental Development Committee, and to carry out periodic maintenance of toilets and pipes, and to form committees to follow up and give monthly reports.



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رفق (1)

- FACULTY OF PHYSICAL EDUCATION
- 1. The water in the swimming pool has been rationalized by maintaining the cleanliness and disinfection of the bathroom water and it is not

emptied and filled again except with the knowledge and review of the reports of the Ministry of Health to follow up the validity of the water through periodic reports.

- 2. Follow-up work for the permanent maintenance of toilets and playgrounds.
- 3. There is a committee for water conservation in the college whose reports are attached.

## • FACULTY OF NURSING

1. There is a mechanism by spreading awareness of the importance of water conservation.

2. Use saving faucets instead of regular faucets.

3. Forming a working group at the college to develop an executive plan to maintain water consumption and follow up the time plan, provided that the working group meets periodically, to find out the results of the executive work plan and its position, and to agree on the steps and procedures for the next stages of application.



## • FACULTY OF PHARMACY

1- The specifications of laboratories, facilities and toilets match the approved space and proportions standards set by the National Authority for Quality Assurance and Accreditation of Education, and the first study (NORMS) was approved by the College Council No. (560) on 21/9/2010, and the second study (NORMS) was approved by the College Council No. (623) on 21/10/2015. The third study

(NORMS) is being updated and approved. It has a detail of the laboratories and toilets in all college buildings. Immediate and periodic maintenance of these facilities is also carried out. There is a policy of accountability in case of failure.

• FACULTY OF SCIENCE

an interest F. Vice Dean for Community Services and كلية العلوم Environmental Affairs Faculty of Science - Assiut University محمون خدمة المجتمع و تتمية كلية محمدة بقرار رقم ٢٤ لسنة ٢٠١١ اميوط ٢٠١٦ وعبل الكلية لشنون خدمة الم Assiut, Egypt 71516 ألية ترشيد واستهلاك المياه داخل كلية العلوم جامعة أسيوط للعام الجامعي ٢٠٢/٢٠٢١م أليات لترشيد استغلاك المياه داخل حرم الكلية : يتم نلك بصفة دورية بالتنسيق بين ادارة الكلية ممنية في قطاع خدمة المجتمع وتنمية البيئة ويعض من الأدارات الموجودة بالكلية وهم : ادارة الشَّنون العامة وحدة الصيانة بالكلية و رؤساء المعامل بالأقسام وحدة حدائق ومشاتل الكلية . تتشكل لجنة الصيانة بالكلية من : - السيد أ. د/ عميد الكلية رئيساً للجنة - السيد أد / وكيل الكلية لشئون خدمة المجتمع وتنمية البيئة نائباً لرئيس اللجنة - السيد أمين عام الكلية - رؤساء المعامل بالأقسام - مدير ادارة الشنون العامة - مسئول وحدة الصيانة بالكلية و مسئول وحدة الدفاع المدني بالكلية - مدير وحدة حدائق ومشاتل الكلية . ألية لصيانة مواسير المياه لمنع الاهدار الناتج عن التسريبات وذلك يتم بصفة دورية بالتنسيق بين وحدة الصيانة بالكلية والسيد معاون الكلية والسادة مسئولى نجنة الصيانة بالكلية . ويتم التنسيق مع رؤساء المعامل بالأقسام وذلك بالمرور على صنابير المياه وشبكات الامداد الداخلي للكلية ومتابعتها بشكل جيد ومستمر وذلك لمنع تسريب واهدار المياه . أيضا يتم عمل صيانة دورية لصنابير المياه والأحواض والمواسير الموجودة داخل الاقسام والمبنى الادارى للكلية وذلك لمنع تسريب المواسير والصنابير القديمة وتغييرها بصفة مستمرة. وأيضا المرور والمعاينة على دورات المياه والمعامل التي بها رشح من المياه أو المتهالكة ولا تصلح للاستخدام وحيث يتم تغييرها على وجه السرعة وذلك بناءا على التعليمات الصادرة من السيد الأستاذ الدكتور / عميد الكلية . Tel: 02/ 088/ 2412007 / 2 412008 تَشِلُونَ : ۲۰۰۷ ۲/ ۲۰۰۸ ۲/ ۸۸۰/۲۰ Fax: 02/ 088/ 2080209 Email: kamalaly@aun.edu.eg& kamalaly@yahoo.com www.aun.edu.eg/Faculty-Sciencel قتص : ۹۰۲۰۸۰۲/ ۸۸۰/۲۰

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Faculty of Science - Assiut University	جامعة اسبوط / كلية العلوم وكيل الكلية لشنون خدمة المجتمع و تتمية البينية						
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www.aun.edu.eg/Faculty Science							

## Project of installing water-saving tap connections at the Faculty of Science

One of the ideas that were put forward by the Committee for Rationalizing Water Consumption at the Faculty of Science is the installation of heads for water taps that are well consuming and inexpensive in the event that the idea is circulated at the college level.

One of these connections shown in Figure (1), known as - spry tap head - or spray tap connection - was chosen due to its good reviews on marketing pages as well as its appropriate price.

In the beginning, its ability to save water was tested by measuring the amount of water flowing in it and without it at the same time, and we found that it saves water by about 5%.

A slight modification has been made to it - to increase its ability to save water - which is to add a water throttle on its upper part so that it does not cause an increase in water pressure on the joint and at the same time limits the flow of water (watch the attached video No. 1 which explains how to install and work the throttle)

After this modification, it was tried in more than one place by measuring the amount of water flowing in it and without it at the same time, and we found that it saves water by about 55% (watch the attached video No. 2)

Three of these modified taps were installed in one of the student toilets on the second floor, Department of Mathematics, in the presence of Prof. Dr. Abdul Hamid Abu Sahli - Dean of the Faculty and a number of faculty members in the faculty, which is now under evaluation by students to see if the amount of water flowing from it is satisfactory and practical for users in hand washing, ablution and daily uses.

In the event of success of the idea, it will be applied gradually in the toilets of the college with follow-up from the Committee for the rationalization of water consumption to work and evaluate this idea.

كمية المياه المتدفقة من الصنبور خلال 3 توان



spry tap head صورة (1)

