



MASHAV - Israel's Agency for International Development Cooperation



**The Hebrew University of Jerusalem
The Robert H. Smith Faculty of Agriculture, Food & Environment, Division for International Studies**

AQUACULTURE: PRODUCTION AND MANAGEMENT

March 10, 2014 – April 3, 2014

MASHAV is the Hebrew acronym for the Agency for International Development Cooperation, a department established 50 years ago in Israel's Ministry of Foreign Affairs. MASHAV is responsible for designing and implementing Israel's international development programs, carried out in Israel and in partner countries.

In cooperation with the Hebrew University of Jerusalem's Faculty of Agriculture – MASHAV's only academic affiliate – we are pleased to announce the opening of a training and capacity building program on Aquaculture: Production and Management. The course will be held in Israel at the Robert H. Smith Faculty of Agriculture, Food and Environment, Division of External Studies, in Rehovot from March 10-April 3, 2014

OBJECTIVES

Israeli aquaculture has seen rapid changes since its establishment more than 50 years ago. Whereas extensive carp culture was the main aquaculture activity in the early days, Israeli aquaculture presently comprises a variety of fresh and marine aquatic species, each characterized by specific management methods.

Increasing populations in numerous countries around the world suffer from hunger, malnutrition and a lack of crucial protein in their diet. Growing fish in ponds (aquaculture) rather than in large lakes can provide an excellent source of protein for local populations. Hunger can be alleviated by utilizing existing water resources for the individual needs of the people living there.

The main problem is dwindling catches from the lakes and undeveloped aquaculture thus creating a big gap between supply and demand of fish for human consumption. These countries are endowed with abundant aquatic resources but have not been able to realize substantial production from aquaculture due to lack of technology in all aspects. Training of key leaders that belong either to the local academia or experts in the field will

be equipped with the pre-requisite skills for increased aquaculture production on a commercial and sustainable basis. This is the guiding principle behind this program. The program is intended to present the students with various aspects and developments of aquaculture with emphasis on the Israeli expertise, and to share experiences and know-how. Theoretical aspects of aquaculture (e.g. physiology, genetics, endocrinology, microbiology, reproduction) as well as more applied aspects (e.g. culture methods, breeding programs, species selection) are presented through frontal lectures and case studies as well as excursions and hands-on experience. It is geared for countries that have fresh water that can enable sustainable aquaculture.

The teaching staff comprises Faculty staff members as well as experts from other academic and governmental institutes. The program will especially benefit those participants with theoretical and practical experience in the aquaculture field.

Professor Berta Levavi-Sivan, the program coordinator from the Faculty of Agriculture, Food and Environment, has completed a 4-year project whose purpose was to combat depleted fish supplies in Lake Victoria. This project's success exceeded all expectations and created a breakthrough by improving the level of protein in the population with increased fish consumption and has led to further collaboration between several research institutions from Uganda with the support of the Hebrew University.

It is our anticipation that participants will enrich their respective countries with new scientific knowledge and research approaches, while simultaneously establishing a basis for future research cooperation between the participants and the researchers at the Robert H. Smith Faculty of Agricultural, Food and Environment. We also encourage follow-up programs in participants' home countries.

PROGRAM OF STUDIES

- General aspects of aquaculture
- Fish physiology and immunology
- Reproduction and larviculture
- Fish genetics
- Fish diseases
- Fish nutrition and feed technology
- Water quality and aquacultural engineering
- Rearing of other aquatic animals than fish (algae, crustaceans, bivalves, etc.)
- Fish behavior

STUDY CONDITIONS

- Classes will be held at the Faculty's Rehovot campus, where there are laboratories, advanced research equipment and the central library of Agricultural Science.
- Around-the-clock computer access will be provided, and computers will be used extensively.
- We recommend that participants who own a personal computer bring it with them for their own convenience.
- Scientific material and homework will be assigned and graded.
- Professional field trips will be held.
- Full attendance is required.
- We reserve the right to make changes in the academic program.

COURSE COMPLETION

Each participant will prepare a seminar presentation, which will be reviewed and graded. It should apply knowledge acquired during the course to a topic in food safety. Participants are advised to bring with them digitalized data relevant to their countries, especially on food legislation. On completion of the course and fulfillment of its requirements, participants will receive certificates.

REQUIREMENTS

Candidates interested in attending this program require:

An academic degree (M.Sc. or above) in biology, animal sciences, agriculture, or in a related field from a recognized university.

An authorized certificate of English proficiency at a level of at least 89 on the TOEFL new Internet based scale or an internationally recognized equivalent.

A detailed record of studies and copies of degrees must be included with application forms.

An official certificate of good health.

Professional experience in the field of aquaculture is preferable.

Letters of recommendation from the candidate's place of work or study.

COST AND APPLICATION

Scholarships are available from MASHAV (see below) to cover the fee for study. The scholarship covers tuition, board, lodging and travel in Israel required for the purposes of the program of studies. This fee does not include travel costs to and from the home countries or incidental expenses.

Application forms may be obtained from the nearest Israeli diplomatic or consular representative or can be downloaded from the website of the Israel Foreign Ministry, MASHAV Study Programs at:

<http://www.mashav.mfa.gov.il/MFA/mashav/Courses/Pages/default.aspx>

Completed applications MUST be sent directly to the Israeli representative in your country by **Feb. 3, 2014**. In addition, please send a copy of the forms in PDF format and **not** JPEG to the Faculty by email to: malab@savion.huji.ac.il.

ADDITIONAL DETAILS FOR PARTICIPANTS

ACCOMMODATIONS: Single bedroom accommodation in a shared apartment will be provided in our fully equipped guest house on campus. Meals will be provided. Both laundry (on campus) and dry cleaning (in town) are at the participant's expense.

WEATHER: The weather in Israel during the winter months is varied, approximately 10-22° C. There may be some sunny days where light clothing is appropriate, but it might also rain and be cool during the season. Participants are requested to bring clothes suitable for outdoor activities including a warm jacket and comfortable walking shoes. We also recommend that you bring some light sweaters, long-sleeved shirts, a rain coat and an umbrella.

INSURANCE: Participants are insured for medical care during their stay in Israel. This does not include pre-existing conditions and /or major dental care. Personal belongings are not insured, and are the responsibility of each individual.

Participants who take regular medication must bring enough medicine for the duration of the course. Participants who wear glasses are advised to bring a spare pair. We recommend that hand luggage include basic toiletries and a change of clothes for the first day or so. These should be carried separately in case of delay in baggage delivery. Participants will not receive any allowance or pocket money. Please bring money for out-of-pocket expenses.

AIRPORT TRANSPORTATION: Those accepted to the course will supply flight details to their local Israeli representative and to us. Upon arrival in Israel, the participant will pick up his/her luggage. After passing through customs, the participant will enter the arrivals terminal and walk towards the left. Go up the escalator to the first floor. On the left, behind the car rental counters, you will see a counter of a company called MONI-SITON. This is a special taxi service, which has a list of expected arrivals. Go to the counter and tell them your name, country and that you're attending a course at the Faculty. You will be taken to the Faculty of Agriculture, Rehovot, free of charge. This service is pre-paid.

PLEASE DO NOT TAKE ANY OTHER FORM OF TRANSPORTATION!

PARTICIPATING INSTITUTIONS

This 25-day course is truly a joint venture. Involved in its implementation are:

Academics: Under the auspices of the Hebrew University of Jerusalem's Robert H. Smith Faculty of Agriculture, Food & Environment. **Academic Coordinator:** Professor Berta Levavi-Sivan **Administration:** The Faculty's Division for International Studies in cooperation with the Division for International Cooperation of the Ministry of Foreign Affairs (MASHAV).

MASHAV

MASHAV – Israel's Agency for International Development Cooperation - at Israel's Ministry of Foreign Affairs was founded in late 1957, and is responsible for the design, coordination and implementation of the State of Israel's development cooperation programs.

MASHAV concentrates on human and institutional capacity building by sharing Israel's own development experience and expertise, imparting know-how and transferring innovative technologies and tested methodologies adaptable to developing country needs.

MASHAV's approach is to ensure social, economic and environmental sustainable development, joining the international community's efforts to implement the Millennium Development Goals by 2015. In events of natural disasters, MASHAV also provides humanitarian assistance and participates in reconstruction and rehabilitation efforts.

THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem was opened in 1925, preceding the establishment of the State of Israel by more than two decades. The University was designed to be a world class institution of higher learning and research. Today, the Hebrew University comprises seven faculties, 15 schools, some 60 research centers, a student body of about 23,000 and a tenured-track faculty of some 1,500. One third of its enrollment is at the M.Sc. and Ph.D. level.

THE ROBERT H. SMITH FACULTY OF AGRICULTURE, FOOD & ENVIRONMENT

The Hebrew University's Robert H. Smith Faculty of Agriculture, Food & Environment was established in 1942 in Rehovot, a city at a distance of some 55 km from the main campus of the University in Jerusalem. The site was chosen with considerations of its climate and soil conditions. It is the only agricultural institution of higher education in Israel offering university degrees.

The Faculty's Division for International Studies was established in 1986. One of its aims is to expose academic graduates from abroad to post-graduate programs, giving them insight into the achievements and research of Israel in general and of the Faculty in particular, expanding their knowledge in specific fields and creating opportunities for international cooperation.

COMMUNICATION

Further information relating to the subject matter of the course may be obtained from:

Division for International Studies

Robert H. Smith Faculty of Agriculture, Food & Environment

P.O. Box 12

Rehovot, Israel 76100

Tel. 972-8-9489509, or 972-8-9489511

Fax. 972-8-9470171

Website: <http://departments.agri.huji.ac.il/externalstudies/index.php>

Director: Ms. Miri Ben-Haim

Program Administrator: Ms. Mala Braslavsky

E-mail address: malab@savion.huji.ac.il