



STATE OF ISRAEL
MASHAV
**Israel's Agency for International
Development Cooperation**



**HEBREW UNIVERSITY OF
JERUSALEM**
**Robert H. Smith Faculty
of Agriculture, Food &
Environment**
Division for External Studies

F0324012

THE INTERNATIONAL POST-GRADUATE PROGRAM ON

**AQUACULTURE:
PRODUCTION AND MANAGEMENT**

March 5, 2012 – March 29, 2012

In cooperation with the Hebrew University of Jerusalem's Robert H. Smith Faculty of Agriculture – MASHAV's only academic professional affiliate in agriculture – 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 5 – March 29, 2012.

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 recently 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.
- Basic instruction will be given to achieve the required level of proficiency in PowerPoint for preparation of a final project.

- Scientific material and homework will be assigned and graded.
- Professional field trips will be held.
- Full attendance is required.

PROGRAM COMPLETION

Each participant will prepare a final project, which will be reviewed and graded. It should apply knowledge acquired during the program to a topic in Aquaculture. Participants are advised to bring with them digitalized data relevant to their countries. On completion of the program and fulfillment of its requirements, participants will receive certificates, which will be accredited by many universities.

REQUIREMENTS

Candidates interested in attending this program require:

- An academic degree (B.Sc. or M.Sc.) 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 also be downloaded from the Internet site of the Foreign Ministry of Israel, MASHAV Study Programs.

Their address is: <http://mashav.mfa.gov.il>

Completed applications (2 copies) MUST be sent directly to the Israeli representative in your country by February 3, 2012.

PARTICIPATING INSTITUTIONS

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

- Academics are under the auspices of the Hebrew University of Jerusalem's Robert H. Smith Faculty of Agriculture, Food & Environment.
- The Faculty's Division for External Studies administers the course.
- The course is conducted in cooperation with the Agency for International Development Cooperation of the Ministry for Foreign Affairs (MASHAV).

MASHAV

Israel's Agency for International Development Cooperation, known as MASHAV in its Hebrew acronym, was founded in 1958 as part of the Ministry of Foreign Affairs. It is responsible for initiating and implementing Israel's development-cooperation program worldwide. MASHAV aims at transferring the expertise and technologies, which have assisted Israel in its own path to development, to other countries. Today, Israel cooperates with almost 140 countries, providing training in Israel and abroad, operating on-site demonstration projects and building medical infrastructures in partner countries. MASHAV is active in fields ranging from agriculture to medicine and from community development to entrepreneurship.

THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem was opened in 1925, preceding the establishment of the State of Israel by over two decades. The University was designed to be a world class institution of higher learning and research. Today, the Hebrew University comprises 7 faculties, 15 schools, some 60 research centers, a present student body of about 24,000 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 (35 miles) from the main campus of the University in Jerusalem. The site was chosen due to considerations of climate and soil conditions. It is the only agricultural institution of higher education in Israel offering university degrees.

The Faculty's **Division for External 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.

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** are requested to 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 some money for **SMALL EXPENSES**.
- **AIRPORT TRANSPORTATION:** Those accepted to the course will supply flight details to their local Israeli representative, to be forwarded 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 TOURBUS. 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.**

COMMUNICATION

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

Division for External Studies
 Robert H. Smith Faculty of Agriculture, Food & Environment
 P.O. Box 12
 Rehovot, Israel 76100
 Tel. 972-8-9489344 or 972-8-9489509, or 972-8-9489511
 Fax. 972-8-9470171
 Web-site: <http://departments.agri.huji.ac.il/externalstudies/index.php>
 Director: Ms. Miri Ben-Haim

Program Administrator: Ms. Mala Braslavsky
E-mail address: malab@agri.huji.ac.il