



KKL-JNF Research

*Finding Solutions to Challenges:
For People, the Environment,
Israel and the World*



קרן קימת לישראל
K K L - J N F



At KKL-JNF research has special meaning – it is relevant, it creates partnerships and it creates new technologies that benefit us, the environment and the world.

We take our forestry work seriously and focus on long-term research, investigating scientifically how best to plant, care and maintain forests and woodlands. Forestry at KKL-JNF does not stop at planting trees. It also includes a variety of other subjects: soil-plant-water relations, adapting forestry methods to the effects of climate change, optimal water use (recycled and runoff), people in their environment and how people use forests, just to name a few.



Agricultural research and development is the basis for the development of new products for export. KKL-JNF is a partner in regional R&D stations in peripheral agricultural regions, from Kiryat Shmona in the north to Eilat in the south. These stations focus on applied science to make the most of the natural potential of peripheral regions: climate, soil, varieties of water sources and human resources. The end product of this research is high quality fruit, vegetables, flowers and ornamental fish for local use and export, providing farmers with a viable source of income.



Q. Hundreds of hectares of forests went up in flames. What should we do?

At KKL-JNF we have, unfortunately, become experts at rehabilitating burned forests. *Thanks to our extensive research we have discovered the best ways to bring forest and woodland ecosystems back to life.* We have also found that prevention is better than cure and apply this axiom by using a variety of management methods such as controlled grazing and selective thinning of forests.

Most important, a large part of our research is long-term ecological research that aims to improve the environment, thereby advancing human well-being.

A. At KKL-JNF we transform disasters into achievements!







Q. Can we reduce the amount of pesticides used in agriculture and forestry?

- The Central Arava R&D specializes in bio-organic agriculture and pesticide-free farming.
- The Bet She'an Valley R&D is involved in studies relating to hothouse crops that are almost pesticide-free.
- The Besor R&D is a global expert in the field of intensive greenhouse farming, producing better vegetables and flowers with less pesticides.
- KKL-JNF supports forestry research investigating physical and biological control methods of pests and invasive species.

A. At KKL-JNF we are teaching agricultural pests a lesson!





Q. Can farmers in the Arava make a living from agriculture?

The Southern Arava R&D Station focuses on research relating to date cultivation and the use of marginal water for irrigation.

- Israel exports 14,500 tons of Medjool dates yearly, bringing in 70 million dollars; i.e., 50% of the Southern Arava's income. KKL-JNF funds research to study optimal irrigation regimes for Medjool date palms.

The Central Arava R&D Station focuses on research relating to vegetable farming and ornamental fish.

- The Arava region specializes in bell-pepper farming, producing 130,000 tons yearly, of which 100,000 tons are for export.

A. Thanks to KKL-JNF they most certainly can!





Q: Which fields in agriculture do we study?

- The Ramat Negev R&D Station conducts studies on brackish water irrigation in olive groves and developing agro-tourism.
- The Northern R&D Station is involved in economic research relating to development and marketing, including a groundbreaking study on the use of geothermal water for agriculture.
- The Central Mountain Area R&D Station focuses on cold weather farming, growing grapes and spices and grazing.

A. You can clearly see – when it comes to farming KKL-JNF covers all the possibilities!



Q: Can farmers and wildlife co-exist?

- In order to prevent crop damage by cranes in the Hula Valley farmers plant a special field with food for the birds. KKL-JNF developed a system of wildlife-based tourism focusing on the cranes: visitors can ride a special vehicle to watch the feeding cranes from up close. In this manner we have benefited both wildlife and people. This project, the result of basic research in crane behavior, benefits both wildlife and people.

A. Thanks to KKL-JNF they can, and even profit from it!



Q: Can something be done to solve Israel's complex water issues?

- Israel's water deficit is growing – we study how to use brackish and recycled water in forest and crop irrigation.
- Israel's polluted rivers are being rehabilitated – we study how to transform them from eyesores into scenic gems.
- Erosion is a major cause of desertification – expansion of desert lands into previously non-desert areas. We study how to control desert floods and harness them for irrigation in the battle to roll back the desert.
- Pollution caused by urban runoff is a global problem – we are actively involved in recycling urban runoff through the use of biofilter technology, towards developing water sensitive cities in Israel.

A. At KKL-JNF we believe that responsive innovative research is the best method for dealing with the water situation: analyze the problem and respond!







Q. Is this all we study?

- KKL-JNF works together with the academic world in Israel and abroad at long-term environmental research facilities (LTERs) for the benefit of people and the environment.
- KKL-JNF assesses ecosystem services in various planted forests and native woodlands and develops models for sustainable forest management.
- Environmental research helps KKL-JNF create habitats for reintroducing once extinct plants and animals.
- We study our Zionist and KKL-JNF roots down to the last detail.
- People flock to our forests – we study their needs in order to develop the ultimate outdoor recreation experience.



A. Certainly not! At KKL-JNF we believe that biological and ecological diversity – in research and in the field – is the secret of success.



KKL-JNF produces research results that can be exported.

We rely on partnerships and knowledge sharing with other organizations and countries to find groundbreaking solutions to major problems and challenges. Representatives from developing countries visit Israel and learn about KKL-JNF's pioneering work up close, and we join them in their home countries to implement the knowledge they have acquired.

Our pioneering work in preventing desertification and improving desert agriculture is helping millions of people in less advantaged countries.

At KKL-JNF we believe in synergy – working together produces improved results.

Our research is funded by friends throughout the world. To make all this bigger and better we need you! Join us and help change the face of Israel and the world!





Can you imagine a world without research?

Thanks to our research at KKL-JNF:

- We have healthy, thriving forests and preserve open spaces used by people from all parts of Israel for recreation.
- We support Israel's agriculture and help farmers in peripheral areas.
- We rehabilitate wetlands and rivers for the benefit of people and wildlife.
- We support integrated pest management and contribute to reducing the amount of pesticides, benefitting every level of the environment – local, regional and global.
- We study our land and its environment to contribute our knowledge in the preparation of master plans and land use policy development.

Q. Who benefits from all this activity?

A. Each and every one of us; our environment; the world.



*"Learn from yesterday,
live for today, hope for tomorrow.
The important thing is not to stop questioning."*

Albert Einstein

KKL-JNF: Israel's Largest Green NGO

KKL-JNF's varied and many projects are key factors in shaping Israel. They preserve open spaces, transform the landscape through afforestation, provide innovative water management solutions and promote income-generating activities, including cutting-edge agriculture and tourism for the people in the periphery. Our knowledge and experience cross borders, benefitting countries near and far, particularly in the areas of sustainable forestry and arid land development. We educate today's children, who will become the environmentally conscious citizens of tomorrow, thereby creating a viable future for Israel – and the world.



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