



Perspective

נקודת מבט

The Seven Species and their relevance to sustainable agriculture in Israel today

E. Solowey

Arava Institute for Environmental Studies

Correspondence: elaine.solowey@arava.org

Sacred to Judaism and at the center of modern Jewish and Israeli holiday traditions is the plant set known as the Seven Species. These plants were also crucial to the agricultural systems of Biblical times supplying more than 90% of the locally produced food. To this day the Seven Species have not been surpassed as sustainable and ecologically sound crops for the arid areas of the Middle East. They are an interesting mix of species: two grains: wheat and barley; two deciduous fruit trees: the pomegranate and the fig; one palm: the hardy date; and a Mediterranean evergreen tree, the olive. The seventh of the Seven Species is the vine. From these plants according to the 104th Psalm came bread, fruit, oil "to make the face shine" and wine "to gladden the heart" – in essence almost all the food and drink that was raised in the area.

A few words on what sustainability meant in Biblical times in an arid area are first needed, as the modern person who gains his calories from Green Revolution technologies find the situation of the people living then difficult to understand. Trade was limited and only luxury goods with a high margin of potential profit justified the risk and labor of importation. Thus while there was a trade in spices, salt, dyes, cloth and medicinal and sacred herbs, very little food was imported. Dates, wine, and olive oil were sometimes exported and the Judean date was famous for its size and flavor until the end of Roman times. But a local failure of a staple crop usually meant that the lack could not be easily made up. Indeed, one of the most memorable stories in the Bible dealt with famine that engulfed the entire Near East sparing only Egypt. The Patriarch Jacob was obliged to send his sons to Egypt to buy grain, exchanging what silver

and gold his tribe possessed and carrying the sacks of grain back to Canaan on the backs of donkeys and camels in order to survive.

Because there was little chance of procuring food from outside, Biblical era sustainable agriculture was extremely conservative, concentrating on reliable crops that were able to produce with sparse and sometime irregular supplies of water and other inputs. These crops were also protective and generative of soil, with many useful products that were used to feed both human and animal.

Following the core belief in the book of Genesis that humanity was meant to be steward and guardian to lesser creatures, relatively complex laws protecting animals, plants and the use of water and land were strictly observed. Hence it was forbidden to muzzle the ox used to thresh the grain, to consolidate farms and drive the neighbors away, and to deplete or foul running water. Every seventh year was a sabbatical year in which land lay fallow, debts were cancelled, and after seven sabbatical cycles, during the fifteenth jubilee year, indentured servants were freed. These rules and customs were so important that their execution was overseen by religious authorities. Disputed matters could even be referred to the king if agreement could not be reached at a local level.

Economically and socially, the Seven Species matched the spirit of the times. It was assumed that people would earn their bread by the sweat of their brow and that food should be stored up for lean years. It was also assumed that the community would care for the widow, the orphan and the disabled from whatever local surplus it was possible to generate. The Seven Species

plants also had a vital and sacred dimension. The Hebrew calendar is to this day a lunar calendar (with a correctional leap month that aligns it with the solar year) revolving around festivals of a distinctly agricultural nature. Examining the Seven Species one by one reveals their great value and demonstrates the difficulty of separating the element of "culture" from the element of "agriculture."

The wheat of both ancient and modern Israel is "emmer," the tetraploid "mother of grains". Emmer wheat is versatile in the field as it grows well in both sandy and clay soils, is tolerant of salinity and has a short heavy stem which prevents it from lodging in the fierce south winds of the region. Emmer is also the raw material of flour for bread baking, edible oil, and fermented grain products; and unlike many wheat varieties, its straw is suitable for both feed and building material. Wheat bread from tetraploid emmer is an excellent food. A harder and denser loaf than bread made from the hexaploid bread wheat that would appear later, it was also higher in protein. In the Bible this is the hearty bread that is referred to as the "staff of life".

In fact, the modern Sabbath loaf has the shape of a three-strand braid, shaped to resemble an ear of emmer wheat. Spelt was also cultivated as an alternate crop suited to ancient Israel's fickle weather. "Now the flax and the barley were ruined, for the barley was in the ear and the flax was in bud. But the wheat and the spelt were not ruined, for they ripen late" (Exodus 9:31–32).

Barley, one of the most hardy of grains, is water thrifty and very salt tolerant. Barley was grown in areas that were supplied with water by seasonal flooding, including terraced canyons and salt marshes. It is also resistant to heat and cold and barley straw is particularly valuable for animal feed and thatch. Barley bread was the mainstay of the poor and was prepared unleavened, baked on a heated stone, and is very much like a chapatti or a whole grain matzah. The barley harvest was also cause for celebration as barley was hardier than wheat as to drought and high winds and sometimes did well when the wheat crop was sparse.

Both grains are symbolic of human fertility and courage. The "precious seeds" referred to in the Psalm 126 "Those who go forth weeping, bearing precious seed, will come again rejoicing, bringing their sheaves with them" (Psalms 126:66). This is a direct reference to banished and imprisoned Jews of various captivities, coming out of exile into their own lands again and bringing with them their children who had been born in exile.

The grain harvest was celebrated in two holidays, Shavouth, the festival of the first harvest for the emmer types grown over the winter; and Succoth, or Tabernacles, for the grains grown over the summer. Sheaves of grain are the most common

decoration on the Shavuoth holiday, and the book of Ruth is read publically in the synagogue and at holiday gatherings.

Ruth, who was by birth a Moabite, left her land and her people to live with her mother in law Naomi, who lost her husband and her two sons in Moab. She declares to Naomi in what is perhaps the most famous declaration of love and loyalty in the Western tradition: "wherever you go, I will go, your people will be my people and your God my God and where you die and are buried there I shall be buried as well" (Ruth 1:16–17). Ruth, childless and widowed in her teens but destined to be the great grandmother of King David, so becomes the most celebrated of converts, meeting her second husband Boaz in a field where she is claiming the right of the poor by picking up the scattered ears of barley left by the reapers. By the act of gleaning she is both proclaiming her and Naomi's poverty and assuming responsibility for supporting her mother in law. At the height of the barley harvest Ruth approaches Boaz and asks that he be the kinsman who "redeems" her from her childless state.

David and Colleen Montgomery, who live near Kiryat Malachi in modern Israel, are cultivating two-rowed Biblical barley. They share that, "As a fodder crop it is without compare. It grows well with little water on poor soils and takes easily to organic cultivation methods. The animals love the straw. The grain itself is so fat and beautiful it seems to symbolize abundance itself. The ground grain makes wonderful bread by itself or mixed with wheat flour. Two-rowed barley malts well for beer and ale, too. We've raised different grain crops but Biblical barley is a special crop." David and Colleen provide evidence of modern Israeli farmers who are utilizing ancient seed and farming wisdom, as they help to create a regionally sustainable food supply. Their farming of barley also suggests that the book of Ruth demonstrates the intertwined connection between grain and fertility, grain and social responsibility, grain and the notion of real wealth.

To this day formal and holiday meals in Jewish households begin with the blessing of the bread. In this way the food is blessed and the Creator of all food is thanked at the same time, elevating the meal from a mere stop for bodily refueling into a celebration. The act of breaking bread together became an act of friendship and unity, a sacrament and guests, especially strangers, were traditionally welcomed with these foods. There is no doubt that bread and wine were considered irreplaceable on the table and in the pantry in ancient times. What is less well known is the importance of bread and wine in worship for the breaking and sharing of these foods was the original "communion", a primal sacred act.

Another contemporary Israeli farmer, Elisheva Rugosa of Ariel, has spent two decades promoting the cultivation and utilization of emmer wheat both in Israel and the United States. "It is a healthier grain," she said in a 2002 interview. "The hexaploid bread wheats are unbalanced nutritionally. Raise the blood sugar too steeply and sharpen hunger rather than satisfying it. Emmer wheat is more balanced and should be used to make our daily bread." Here is another contemporary Israeli farmer benefitting from the place-specific Seven Species that were the back-bone of ancient Israeli farming. For modern day farming in Israel to move away from Green Revolution technologies and in order for a sustainable farming culture to flourish, it appears that farm management decisions based on the Seven Species can provide food that is healthier for the soil, and for our bodies.

The olive tree also had a unique and sacred role. Pure olive oil was the anointing oil of the Kings of Israel, a symbol of God's blessing. In the 23rd Psalm it is written "He prepares a table for me in the presence of my enemies, He anoints my head with oil." King David, the author of this psalm, was chosen by a prophet who ignored his older and stronger brothers. King Saul, who ruled before him, pursued him with insane jealousy. King David knew from first hand experience what was like to have a table prepared for him in the midst of his enemies and what it was like to feel the sacred anointing oil on his ruddy head.

Olive oil lamps lit the tabernacle and the temple as well as providing illumination for ordinary homes. Chanukah, the Jewish festival of lights, celebrates a particular miracle: after the Temple was retaken from the pagans during the Maccabean war only one container of pure olive oil remained. To make more oil for the Temple menorah would take several days. The miracle of Chanukah was that the one cruise of oil lasted eight days, more than enough time for more oil to be made. Given the variety with which its products were used, often in very sacred settings, the olive tree became a symbol of purity.

Good olive oil was considered as valuable as a good reputation. The olive may have been the source of the anointing oil for kings but olive oil supplied much of the caloric intake in a Biblical diet that had few sources of fat or oil. The olive was so vital for health that in the fable of Jotham, an ancient tale in the book of Judges, the olive tree refuses the honor of becoming the king of trees. "What would the people do without my fruit and my oil?" the tree in the story asks. "Without me they will suffer and be hungry." Other fruit trees refuse the honor as well. In the end, in a bit of ancient irony, the thorn tree accepts the honor as this tree has nothing better to contribute than its fierce appearance. The olive branch also symbolizes peace and reconciliation. It was the first plant to emerge from

Noah's flood, brought back in the beak of one of the birds Noah released. So the olive is a tree that makes kings, brings peace, feeds the hungry, and fills both humble and exalted dwellings with light. If Jotham's fable was to be rewritten from the point of view of sustainability, the olive tree would be crowned despite its protests.

Adam of Noam Village is a modern organic grower of the olive trees who produces oil using ancient techniques. He shares that, "To get the mild virgin oil you can dip your bread in, you have to pick the olives when they are perfect, to not let them sit, to grind the fruit on stone and press the pulp, unheated, not contaminated by solvents or any modern tricks. Then you have wonderful oil all year that never gets acid, never goes rancid." He continues, sharing that, "Olive wood from the pruning is great too. I can make handles for my tools and little carvings. The olive is the king of Mediterranean trees, it is so useful and it grows on really rough and dry lands with just the rain that falls." Once again we see that the place-specific domesticated Seven Species of the ancient Israelites are able to form the backbone of a regionally specific sustainable agriculture; one that merges both plants and religious heritage.

Another extremely hardy tree woven deeply into the fabric of life and tradition is the date palm. References to the date palm, one of the only sources of sugar in Biblical Israel, abound in the Bible. A righteous man in Psalm 92 verse 12 is said to flourish like a date palm. Tamar, or "date tree," is a common woman's name. The male counterpart of this name is Tomer. Another popular man's name, "Tamir", means literally as impressive as a palm tree. Many coins from both Israel and Judea carry the symbol of fruit laden date trees.

From the date tree comes date fruit, date sugar (from collected sap), fiber for rope, mats and twine, leaves and fruit stalks for basket making, and fronds for thatching. Judean dates were procured by Roman emperors for their table. The Romans who had nothing else good to say about the inhabitants of ancient Israel very much appreciated the quality of their dates. The date tree which grows with irregular and saline water in some of the most barren areas in the Mideast is also one of the four species of plants celebrated during the Feast of Tabernacles (the original fall feast of thanksgiving) as symbolic of the people of Israel. Its presence is seen on the holiday table in the form of an unopened date frond or lulav.

To Lisa Solomon, an expert on date cultivation who lives in Israel's arid and saline Arava valley the date is the most majestic of trees. "Our dates give an average of 180 to 200 kilos per tree per season. This is yielded in one of the hottest and most barren places in the world. We have to take good care of them

of course, to make sure they are irrigated, pollinated on time, we support all the heavy bunches by tying them to the fronds in the crown. We thin our dates and protect them with screen bags. But the result is fine fruit, some of the best in the world that gets packed locally then exported all over.” Lisa uses modern farming practices that do not depend on chemical inputs in order to produce a key food staple of the region; the resiliency of the traditional date will be key as Israel becomes more arid with the onset of climate change, helping form the basis of a sustainable agriculture.

The fig and the vine are two plants that are often mentioned together. A fig tree was considered a necessity both on a farm and in a city garden. In a just and peaceful world, according to the Bible, every man would sit under his own fig and his own vine. The vine, grown over a trellis or arbor, would make a shaded place to rest during the long hot summer days. The grapes, fresh or made into wine, quench thirst and "gladdened the heart". The fig, which produces delicious fresh fruit that can also be dried and preserved, provides both a source of beauty and nourishment. Together the fig and vine came to symbolize the abundance of the natural world and peace and prosperity.

The vine by itself has come to symbolize the love and grace of the Creator. The biblical Joseph who saved Egypt and his people from famine is called "a vine taken out of Egypt and planted by a well" in Psalm 80. Another quote from Genesis 49 verses 22–23: "Joseph is a fruitful bough, A fruitful bough by a spring; Its branches run over a wall. The archers bitterly attacked him, And shot at him and harassed him."

Worn down by slavery and famine the Children of Israel were told that they would bud like vines in the spring time when they came into the Promised Land. "For the LORD your God is bringing you into a good land, a land of brooks of water, of fountains and springs, flowing forth in valleys and hills; a land of wheat and barley, of vines and fig trees and pomegranates, a land of olive oil and honey" (Deuteronomy 8:7–8).

Chaim Oren from the Jordan valley works for the Minister of Agriculture as a consultant for the fig crops in Israel. Chaim explains that, "It is a perfect tree, a perfect food. Good for digestion and full of moisture. The fig is wonderful dried and makes a lovely wine when fermented. The sap of the fig is healing and has anticancer properties, did you know that? That is why everyone should have his own fig and his own vine like in the Bible. The fig is for health and the vine for happiness." Chaim continues, sharing that, "The vine is important too. It roots you to the place, to the earth, shades your arbor and there is nothing better than ripe grapes, right off the vine in the summer, like a wonderful drink in little bottles that you can eat. It makes living

in a desert almost nice when you have figs there and vines." Figs can be grown with minimal chemical inputs, and there is a slow move on various kibbutzim and other farms to grow figs with sustainable practices. However, a larger theme emerges with the Seven Species and contemporary farming in Israel: sustainable agriculture is not only about farming practices, but also cultural knowledge. If there is a sustainable culture, as in the case of Israelite identity with the local landscapes that stretches back thousands of years, then there is the chance for a sustainable agriculture. Cultural values can play a role in inspiring good, sustainable farming practices.

This brings us to the last of the Seven Species, the pomegranate, a crop of some importance in modern Israel, raised for juice, wine, and , the same reasons it was cultivated in Biblical times. This small graceful tree grows well on marginal lands while its wild relatives grace many rocky hillsides. The distinctive scarlet blossom and the beautiful fruit came to symbolize beauty in both the male and female form in Biblical times. The pomegranate is considered the most beautiful of the trees of the field.

Semi-domesticated and diverse in height, habit and fruit quality, the pomegranate probably originated in what is now Iran. It had spread all over the Middle East by Biblical times and was a valued source of fruit, wine and beverages, dye, fine timber and medicine, even then. Pomegranates made of precious metals even decorate the posts of the Torah scroll (while the scroll itself is called the Tree of Life).

In the Song of Songs the beloved's lips are like the pomegranate. Other sacred verses find the colors of the pomegranate fruit in rosy cheeks and the tree's graceful shape in the human form. The pomegranate is reputed to have 613 seeds inside it, the exact number of Judaism's major and minor commandments .The edge of the high priest's garment was decorated with a row of bells and pomegranates that rang as he walked. "You shall make on its hem pomegranates of blue and purple and scarlet material, all around on its hem, and bells of gold between them all around. A golden bell and a pomegranate, a golden bell and a pomegranate, all around on the hem of the robe. It shall be on Aaron when he ministers; and its tinkling shall be heard when he enters and leaves the holy place before the LORD, so that he will not die" (Exodus 2:33–35). Indeed one of the few documented and dated First Temple artifacts is a tiny pomegranate carved from ivory that may have graced a priestly garment.

Dan Rimon of the Pomegranate Growers Association in Israel is full of praise for the pomegranate. "It's a beautiful tree that needs little water. It adapts well to most climates. The

fruit, when cultivated properly is big, juicy and beautiful. A pomegranate tree in flower or fruit is a sight to make you catch your breath. Wine and liqueur from pomegranates is tasty and healthy, too. The fresh juice is considered a drink good for the heart. Oil from pomegranate seeds is used to control high blood pressure. They knew what they were talking about in the old days when they put pomegranates as ornaments on the Tree of Life (one of the terms for Torah scrolls)."

In addition to the food for the people of ancient Israel, these Seven Species contributed animal feed, mulch, thatch for the roof, timber, wood for plows and tools dyestuffs, sugar, and coarse fibers to the agricultural economy of the day. Traditional Jewish agriculture survived the Seleucid conquest and endured into the Roman occupation, adding only a few new crops such as carobs and saffron. The agricultural traditions continued after the failed Bar Kochba revolt in 70 CE in places like Yavneh, Safed and Ein Gedi, but were unable to survive the Muslim invasion in the seventh century when many remaining Jewish farmers fled into the Diaspora.

Farmers and agriculture suffered greatly in the next centuries as the area was invaded by competing strains of Islam, by Mongols, and then by Crusaders, with each group looting and laying waste to the orchards, water systems cisterns and aqueducts until very little remained of what was once a fertile and productive agricultural area. When the Ottoman Empire (1299 until World War I) ruled the area was so agriculturally depressed and devastated that new crops were brought in from other parts of the empire, including new strains of dates, beans, and grains.

The sixth century saw some revival of traditional Jewish crops and settlement outside of the narrow walls of surviving cities, a pattern that continued for the next two centuries. Still, agriculture remained stuck somewhere between the Biblical past and the Ottoman system of domination and taxation that reduced Arab peasants, Greek and Armenian merchants, and Jewish craftsmen alike to extreme poverty.

Upon seeing the plight of their co-religionists in the 1800's, wealthy Jews from Europe, invested large sums of money to bring new crops such as citrus and to revive older crops such as wheat and vines. Among them were the Baron de Rothschild, still known in modern Israel as "The Generous One", and Moses Montefiore who brought updated agriculture equipment to the Middle East and built windmills in Jerusalem.

With the collapse of the Ottoman Empire the British became responsible for some areas of the Middle East, and the French for others. The political storms that periodically swept over the region greatly reduced agricultural production until most

of the Middle East was an international charity case. Indeed, after Israel declared independence in 1948, absorbing Jewish refugees from Arab countries and displaced persons from World War II, it was necessary to strictly ration food. This is because not enough of any variety of crop, old or new, were being grown to feed the population and the new country, boycotted by many nations, struggled to survive. This period was called the "Tsena," or "austerity period", and left such a vivid impression on the soul of the new nation that agricultural research became a priority, leading to an explosion of innovation in irrigation, plant breeding, water desalination and agro-archeological research.

New and traditional varieties of orchard trees were developed by agricultural pioneers. Modern drip irrigation was invented and Israel became a world leader in irrigation technology. The ancient Israelite water systems of the Negev were mapped and explored and Michael Evenari restored and activated the rain fed Nabataean system of water collection by the ruins of the ancient caravan city of Avdat, growing grains and trees in an area with less than 80mm of annual rain.

While much of the agriculture in modern Israel is geared toward the export market, there have always been farmers who have grown traditional species. Dates are the most important crop in the desolate Arava valley south of the Dead Sea and the arid zones of the Jordan valley. They are packaged and shipped from these barren valleys all over the world and are one of the more profitable crops for the modern farmers, as well as one of the few halophytes in the modern crop library. Olives are a widely planted crop in the Galilee and western Negev, supplying most domestic olive oil as well as kosher olive oil for Jewish communities abroad. Grapes for the table and for wine are cultivated in many hills areas from the Lebanese border to the Western Negev with the southernmost vineyard at Neot Semadar in the mountains just north of the Red Sea. In Israel today figs and vines are the most popular plants in the "house orchard" and the walled garden.

Israel actually has a tiny "wheat belt" between Kiryat Malachi and Beersheba where Jewish and Bedouin farmers sow wheat each year on rain-fed fields. The wheat from this area is particularly suited for making pasta. Barley is used as a bioremediation plant and for reclamation of saline soils slightly to the south of this region in areas with less annual rainfall. Barley has gone out of favor as a bread grain in the Middle East and is mostly used for beer making, as a whole grain in soup and crackers, and as an animal feed. I have found a good deal of inspiration and common sense in the agricultural customs described in the Bible and the Talmudic tractate called "Seeds".

My own experience

I will start with the "common sense" factor. Our modern system of agriculture is based on the continuous abundance of water, fuel and fertilizer. The Biblical systems are based on thrift, scarcity and an irregular climate. It is an agriculture designed for hard times. However, hard times do not excuse the mistreatment of neighbors.

Water by law must be fairly portioned between upstream and downstream users. Water by law cannot be fouled by those upstream. Farms should not be bought up until one owner owns all the visible land around his house. A neighbor stopping in an orchard may eat, drink and refresh himself with fruit and water but may not carry part of the crop away without permission. The reaper may not turn back for missed stalks or reap around the edges of the field; these are left for the poor. The first fruits of the trees and vines are also left for the poor. And even in times of war fruit trees must not be destroyed in the territory of the enemy.

The sabbatical year, as well as the jubilee year, is a fallow year for intensive agriculture. Farmers could harvest from their trees and vines but were to let the earth rest and the soil structure to reform. This was especially important in areas with poor soils and limited rainfall.

Scarcity and the need for thrift also do not excuse cruelty to animals. Animals must be milked, fed, put out to graze or brought into fold no matter what is happening with the human owners. Human owners are responsible for damage caused by their animals, not the animals themselves. The ox that treads the grain must not be muzzled; the animals of unequal strength cannot be yoked together. And in general hunting was discouraged as it is assumed that the wild animals belong to God. These ideas are sensible in an area where everything, even the rain, is scarce and precious. In other words, the Seven Species and the system of farming described in the Hebrew Bible represent a form of Traditional Ecological Knowledge that is both practical and viable for creating a resilient, sustainable agriculture in contemporary Israel.

For example, to address some of our modern dilemmas there is the rule of Kil'ayim, or the unwise union or hybrid. Here we can point out that it is forbidden to breed a dog with a wolf as the result would be a wolfish dog, a danger to flocks and children or a doggish wolf, unable to hold a place in the pack. In the age of chimeras, genetically engineered plants and organisms modified with human DNA it may be necessary to think about the relevance of this ancient law. A wolfish dog is not what it seems, it is not truly domesticated and is more of a danger than an ordinary dog. In the same manner, a plant that looks like a normal fruit or vegetable but contains the genes of inedible

plants or secretes its own pesticides is more of a danger than an ordinary food plant. A doggish wolf has been handicapped in relation to its ability to survive. In the same manner a plant modified to do something it has not evolved to do, or to have an abnormally high harvest index may be hampered in its growth and viability. This is a clear message to those who breed (and modify) both plants and animals. It is unwise and against Biblical law to change living things with no thought for the organisms own needs. I believe these are common sense rules that could be applied to modern practices, some of which are very damaging to the countryside.

As to the inspiration I have derived, I have been inspired and intrigued by the descriptions of plants in the Bible and the explanation of their uses, from the food of the poor (barley) to the frankincense, myrrh and balsams necessary to worship in the Temple. The incense trees were as important to the religious and spiritual life of that day as the Seven Species were to the economic life of the day, indeed, it is hard to determine where religion elements left off and economic elements took over. Since many of the plants were also used medicinally one begins to sense a rich and integrated tapestry of law, custom, use and belief that we moderns are only beginning to understand.

Much of my research now is based on admitting what I do not know and defining what I would like to find out using Biblical and Talmudic laws and practices as clues. The fact that five of the Seven Species are so important to today's economy in Israel is a testament to the hardiness and adaptability of these plants. Hardiness however is only one reason that the Seven Species have endured. The plants have many qualities that made a sustainable and prosperous life possible in an area with an unstable, arid to semi-arid climate.

Indeed the First Jewish Commonwealth, based on the cultivation of these species, endured for 1,800 years. These species were all indigenous or had become naturalized early in Biblical Israel's history. They required little water or were able to survive on an irregular water supply. They produced multiple products that were easily stored and integrated into everyday life. These species were tolerant of a wide variety of soils and were both heat and cold tolerant as the climate of ancient Israel varied from searing heat to freezing winter winds and occasional snowstorms. These plants accompanied the Jewish people on their long historical journeys, the vegetation of the spiritual landscape and the species planted in the heart.

Religion, agriculture and tradition are so intertwined in the cultivation of these plants that it may well be asked if they were important because of their sacred dimension, or if they were considered sacred because of their extreme importance to the

very survival of the people who grew them. Other crops were cultivated in Biblical times but none were considered such vital elements in the spiritual and agricultural landscape as the Seven Species. And none of the new crops, introduced in the last three hundred years to the Turkish province of Palestine (part of which would become a British mandate and then modern Israel), have attained the status of the ancient crops.

Modern Israel is a small country with limited arable land and little water, but a vigorous agricultural community that has experimented in growing everything from cotton to bananas.

While some crops have flourished for a time, their cultivation is often faddish and new crops usually vanish in times of recession or drought. That is when the influences of the unstable climate and the arid landscape return to shape the crop library, eliminating all but the most beloved, useful and hardy plants. In recent decades there has been a renewed interest in Biblical crops as sustainable alternatives. Among the new and more veteran agricultural endeavors the Seven Species reappear in their sturdy glory as the once and future sustainable crops of the land of Israel.