and June 4. Also two copies "Consular Service"; Ex. Doc. No. 121, Message of the President &c., dated March 20 1884, and one copy report of Secretary of State to Chairman Committee on appropriations Senate. dated May 29, 1884: also Circular respecting Cotton Centennial Exposition at New Orleans, dated May 3, and 2 copies Extra Consular reports for September 1881 and November 1883.

I remain Sir respectfully
your obedient Servant

U. S. Consul

No. 59.

United States Consulate,
Jerusalem, Syria
July 14, 1884.

Hon. Alvey A. Adee
Third assistant Secretary of State.
Washington. D. C.

Sir.

In answer to the circular from the Department of State, dated December 4, 1883, respecting fruit culture in this Country, I have the honor to make the following report on

The culture of olives, oranges, grapes, an figs in Palestine.

Olives.

There are four kinds of olives raised in Palestine denominated respectively by the natives the white, the black, the large, and the small. The difference in the trees is not specially marked, and as they all grow together they appear alike to the casual observer. Out of a thousand trees perhaps not more than one will produce what are called the "large olives" likewise very few of what are called the "small olives" are raised. The production is confined mainly to these called "white" and "black" kinds. The white are really green, and the black are a very dark purple. While these two kinds are the best, the black kind is that which is chiefly raised.

Olive trees are produced from the stems of the wild olive trees which are raised for the purpose. These are planted about thirty feet apart and at the age of eight or ten years are grafted, and in three or four years the new shoots begin to bear. Sometimes when a very small wild olive tree is grafted fruit is produced in six years, but

but the usual period is from ten to fourteen years, counting from the time that the wild olive tree starts from the ground.

When the young trees are planted care is taken to have their roots so deep that they will not be molested by the plow, for the land between the trees is always cultivated. Otherwise no pains is taken in planting the trees and it is seldom that they are watered. Their growth is most rapid and certain if they are watered, but as few farmers have the means to do this it is rarely done. And as to irrigation it may be said that no money is ever spent in irrigating an olive orchard. As to the time that an olive tree will continue bearing there are no means of determining the question. With regard to many of the oldest trees about Jerusalem there is a tradition that they date from the time of the Romans.

Olive trees bear a good crop every other year and during the off year only a small or poor crop. The reason is not in the nature of the olive trees themselves, but in the manner of cultivating them. The olives grown on the tiny twigs which sprouted the year previous. When they are gathered the trees are beaten which destroys the tender twigs of that year. Consequently the next year there is only a small crop. Then of course they are not beaten, hence the young twigs get a start and the next year produce a heavy crop. Were sufficient care taken in gathering the fruit the trees would produce a good crop every year.

As to the soil best adapted for their growth they seem to flourish best in the valleys and on the plains, and there they produce the largest quantity of fruit. but the olives that are raised in the mountains are said to produce more oil and that which at the same time is of finer quality.

In very many cases the earth seems to fall away from the roots of the trees so that the parts which should naturally be underground are exposed to view and one sees a compined mass of gnarled, tangled roots and trunk. Hence a small terrace is built about the trunk of the tree so as to protect the roots from the effects of the sun, otherwise the heat during the long dry summer would injure them greatly.

The kind called the "green olives" which always remain green, are gathered just before they are ripe, otherwise they would become too soft for use. Those called the "black olives" are allowed to remain until they are nearly ripe when they are picked carefully and put into baskets with salt and subjected to a slight pressure. They remain thus for three or four days when they are removed from the baskets and put into earthern jars or wooden barrels without the addition of salt, water, or any thing in which state it is supposed that they will keep for an indefinite period. This is the common method of preparing them for eating, but the people in the towns sometimes prepare them for this purpose by pickling them with vinegar.

Those olives that are designed for oil are left on the trees longer and are gathered when ripe by being beaten off as I have explained. The are allowed to remain in heaps for twenty or twenty five days until they become soft when they are crushed in great stone mills constructed for the purpose and afterwards subjected to a heavy pressure, being first placed in large strong baskets through which the oil strained as the pressure is applied.

As to the yield of olive trees a very small tree produces two measures, a medium sized tree six or eight measures, and a large tree produced twelve measures. No estimate can be made as to how much an acre of olive orchard will produce and the yield is never reckoned in that way, but always according to the number of measures. It may be said that an acre or feddan is not a very well defined amount. It means "what a yoke of oxen will plow in a day" which is very indefinite, for strong and fresh oxen will plow more than those that are small and fatigued. and again, if the land is rough less can be plowed than where it is smooth.

A measure of olives is considered to be about four bottles or a little less than twenty four pounds. And four bottles of olives will produce one bottle of oil, which is equal to about three quarters of a gallon. The oil as it is taken from the presses in the country is put into skins and carried to the large towns or to the place of export, here chiefly to Jaffa, where it is purchased, stored, and afterwards shipped by the oil merchants. It is stored in large cisterns which are prepared with great care and is shipped at the merchants convenience. It is stored in bulk but is shipped in casks and is sent mostly to France, where it is reduced, mixed, and adulterated in various ways and at last is turned out as pure, genuine french olive oil.

There are really three pressings before all the oil is extracted from the crushes olives. The result of the first pressing is called the "best oil"; of the second "good oil", while that of the third pressing is always poor. The first and second qualities are mixed, and the third is always sold to the soap makers.

The refuse or cake that remains after the oil has been extracted furnishes a superior kind of fuel and for that purpose it not only finds a ready sale but commands a good price.

As to taxes one tenth of the oil produced belongs to the Government. The estimate is made beforehand by judges appointed for the purpose who visit the orchards and decide on the quantity of oil that the trees will yield.

These officers are sure to make over-estimates; this is a part of their duty, i.e., to themselves. A certain number of trees may be estimated to produce one thousand measures of oil, when in reality they will not possibly produce more than eight hundred measures. Hence the owner before he visits the orchard with the appraiser will hand the latter a certain number of dollars, and after much wise consideration of the matter the appraiser decides that the orchard in question will produce five hundred measures of oil. Such a process is gone through with year after year. Besides this there is a land tax which is considerably higher than the ordinary rates in case the land has upon it young olive trees that do not yet yield fruit.

Oranges.

The orange groves in Palestine are confined mostly to Jaffa and Gaza which are situated on the sea coast. The trees seem to flourish best near the sea, the beach sand mingled with alluvial soil being the best adapted to their growth

There are in Jaffa alone no less than 500 different gardens containing altogether not far from 800,000 trees both large and small. Of these gardens 150 are ranked as first class, while the others are ranked as second or third rate in size and production.

The trees are planted about fifteen feet apart although there is no regularity or exactness in planting orange trees by the natives any more than there is in anything else that they do.

In July or August cuttings are made from the sweet lemon tree, each about eighteen inches long, and these are planted in beds and watered twice a day. They grow rapidly and in the second year they are budded. When the bud has taken, the lemon stalk is cut off a few inches above the bud, and the new shoots begin to bear in the third or fourth year. The trees continue bearing for twenty or thirty years.

During the summer every tree is watered once a week, and some gardeners make it a rule to water their trees every fifth day. Water is brought to the surface from a depth of twenty five or thirty feet where an ample and even inexhaustible supply is found, by means of horse power, the owner of the garden employing for this work horses, mules, donkeys, or camels according to his convenience.

The cost of irrigation with which it is customary to reckon the other expenses that are necessary to keep the ground in order, is estimated at about one-fifth of the value of the crop in gardens of the first class, while in the inferior gardens it amounts to one-half of the value of the crop.

The orange trees in Palestine do not suffer from any noxious insects, fungus growths, or diseases of any kind. Both the climate and the soil seem admirably adapted to produce healthy trees.

The ground between the trees is generally cultivated, small fruits or vegetables being raised where the branches of the trees do not touch each other. Interspersed among the orange trees one frequently sees palm trees, bananas, the apple, peach, plum, pear, apricot, or fig, also the mulberry and sycamore. I do not know any reason for this unless it be attributed to oriental fancy.

The average cost to the producer of one thousand oranges is estimated to be about $5.00, and capital invested in orange gardens is expected to return an interest of twelve and sometimes as high as fifteen per cent. For 1,000 oranges it is customary to reckon 1,500, so that after they are assorted the purchaser will have out of his 1,500, one thousand that are fit for exporting.

They are exported in large quantities to Europe and among the different markets Odessa is becoming one of the finest for the Jaffa oranges. Thousands of boxes are also sent to London. But as the conditions of shipment vary greatly the business is not always a paying one. And experiment has been made the past season of sending them to New York and with very favorable results. Could they be introduced into American markets they would command a ready sale at a good price, since our country produced nothing like them.

There is a kind of orange which grows upon trees that are raised directly from the seed of the orange without budding or grafting. These are smaller and of inferior quality and are all consumed at home.

The proper Jaffa orange and the only kind exported, are oval or lemon shaped, and are very large, in fact they are the largest oranges in the world. The skin is thick and in the largest specimens the pulp is inclined to be rather dry.

Lemons.

Comparatively few lemons beyond a sufficient quantity for home consumption, have been raised in this country, although more and more attention is being paid to their culture every year. Like the oranges they attain a very large size and are far less acid than those found in our American markets. The trees flourish well, both the climate and the soil being finely adapted to their growth.

Grapes and Raisins

Vineyards are planted on the hillside and plains, in the valleys and on the sea coast, and the vines appear to flourish as well in one place as in the other. As to the grapes those that are raised on the hillside are the sweetest and best and they also produce the greatest quantity and the finest wine. Good wine is not produced from grapes that are raised near the sea. All the hill country of Palestine region and it is here, as I have said, that the best results are obtained. The earth between the vines is plowed twice a year, men lifting the vines while the plow passes by. In many vineyards the vines are laid on small piles of stone or on the rocks, while in a few they are trained on sticks which raise them slightly above the ground. While the vines are very young the land between them is frequently planted to cucumbers. After three years the vines begin to bear well and they continue bearing for an indefinite period. The natives say for a hundred years.

The pruning of vines is done in the rudest manner. It may be said also that the orange, lemon, fig, and olive trees are never trimmed. Could these trees be properly cared for, and could the vineyards of the country be put likewise under the care of skilled laborers, there is no reason why the fruits of Palestine, that are here mentioned, might not rival the finest fruits of similar kinds that are at present raised in any part of the world. Even under the present rude system of cultivation the abundance and sweetness of the grapes raised here is simply astonishing. The grapes are not injured by mildew, nor are the vines ever irrigated. As to the cost of the crop per acre, or the yield and value, it is impossible to give any data. The Government claims one-tenth of the yield which is estimated by appraisers or "experts" as in the case of the olives. These men examine the vineyards and decide as to the number of kantars and rottles that the vines will produce. The Government receives its share in money, not in kind as is the case with wheat and barley. (100 rottles = 1 kantar. 1 rottle = nearly 6 pounds. 1 kantar or 100 rottles = nearly 600 pounds.)

Very fine raisins are made in Es salt (east of the Jordan), and also in Hebron. These are chiefly consumed in the country for raisins are as much a staple article of food in every family as potatoes are in America. The seedless raisins which are very sweet, are sent to Egypt and small quantities to other places also. Wine which is manufactured in great quantities, is consumed at home, and very much is shipped to different parts of Europe. It is estimated that two kantars or twelve hundred pounds of grapes will produce one kantar or six hundred pounds of wine, or not far from seventy five gallons.

Figs

The natives count as many as twelve kinds of figs of which the so called "white" fig (which is really green) is the best. The trees begin to bear in the third year of their growth and attain full bearing in their

fifth year.

From the nature of the fruit fresh figs cannot be shipped from the country. They are dried by being spread in the sun on flat rocks or on the ground. A dried fig is small and hard, and the skin is puckered. Great quantities of both the fresh and the dried figs are consumed in the country. All the poorer qualities of figs are gathered and are used for making a very cheap liquor, the arikat kind of arak used largely by the Jews.

Rainfall in Jerusalem during the rainy Season of 1883—1884.

		inches	rainy days
October	1883	.310	3
November	"	7.590	11
December	"	3.205	12
January	1884	6.085	10
February	"	8.260	18
March	"	3.750	10
April	"	2.080	3
May	"	.620	3
		31.900	70

I remain, respectfully,
your obedient servant

U. S. Consul

No. 60

United States Consulate
Jerusalem, Syria,
July 23, 1884.

Hon. Alvey A. Adee.
Third Assistant Secretary of State,
Washington, D. C.

Sir

No doubt the Department fully realizes the difficulties under which reports pertaining to certain subjects, are prepared in this country. The Consul has first to collect and classify the necessary statistics, which involves a great amount of labor. Even after this work has been patiently accomplished the results, in some cases, are so meagre that I am ashamed to forward them to Washington. This must be my excuse for not furnishing reports in answer to the "Cattle" Circular of July 13. 1883, and the Circular "relating to agricultural machinery" of February 20, 1884.

I remain Sir respectfully,
Your obedient Servant

U. S. Consul.

No. 61

United States Consulate, Jerusalem, Syria
August 11. 1884.

Hon. Alvey A. Adee
Third Assistant Secretary of State
Washington. D. C.

Sir.

I have the honor to acknowledge the receipt of your despatches No. 32 and 33 both dated June 16, also Circular dated June 21 respecting "Currency Certificates;" — Circular dated July 14 respecting Appropriations Act for Consular and Diplomatic Service, and Act. Public No. 111, Appropriations for consular and Diplomatic Service, approved July 7. 1884. — Circular respecting "Currency Certificates" was in duplicate.

Despatch No. 32 contained a blank form of bond to be executed by Mr Frank C. Clark which has been forwarded him as he is temporarily absent from the city.

Respectfully your obd't servt

U. S. Consul

No 62

United States Consulate, Jerusalem, Syria,
August 13. 1884

Hon. Alvey A. Adee
Third Assistant Secretary of State
Washington, D. C.

Sir.

I have the honor to make the following communication respecting Mr Levi Sadler, an American citizen residing in this city, who died on Friday last, August 8th. His disease was dysentery aggravated by the oldness of old age. He lived alone and had no family or near relatives in this country. His Citizen Paper, issued by the Court of Common Pleas, Mercer County, Pennsylvania, is dated June 15. 1870, and his Passport No. 2276, from the State Department, is dated May 20. 1882.