

1 Rabbi Paul Plotkin

2 YD 84

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Insect Infestation And Our Food, The Halakhot Of Bugs

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7 *Approved on June 13, 2018 by a vote of 20-0-2. Voting in favor: Rabbis Pamela Barmash, Elliot Dorff, Baruch Frydman-*
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12 Sheila:

13 What is the level of inspection for bugs that we are required to utilize before eating fruits and vegetables?

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15 Teshuvah:

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17 The Biblical origins of the prohibition of eating bugs is found in Leviticus 11 and Deuteronomy 14.

18 " But anything in the seas or in the streams that has no fins and scales, among all the swarming things of the water and
19 among all the other living creatures that are in the water-they are an abomination for you and an abomination for you they
20 shall remain" .(Lev:11-10)

21 "All the things that swarm upon the earth are an abomination; they shall not be eaten."(Lev 11:41)

22 "For I the Lord am your God: you shall sanctify yourselves and be holy, for I am holy. You shall not make yourselves
23 unclean through any swarming thing that moves upon the earth" (Lev 11:44).

24 *"These you may eat of all that live in water: you may eat anything that has fins and scales. But you may not eat anything*
25 *that has no fins and sales: it is unclean for you." (Deut 14:9.10)*

26 *"All winged swarming things are unclean for you: they may not be eaten" (Deut 14: 19)*

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The Committee on Jewish Law and Standards of the Rabbinical Assembly provides guidance in matters of halakhah for the Conservative movement. The individual rabbi, however, is the authority for the interpretation and application of all matters of halakhah.

28 There is an additional prohibition against eating that which is disgusting (Baal teshaktzoo)... "You shall not draw
29 abominations upon yourselves through beast or bird or anything with which the ground is alive, which I have set apart for
30 you to treat as unclean" (Lev 20:25).

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32 The Talmud reinforces these prohibitions in Makot:13a; and Makot:16b shows how consumption of bugs can violate as
33 many as 6 different prohibitions.

34 Many of the laws are codified in the Shulhan Arukh Yoreh Deah 84.

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36 The halakhic reality though is not nearly as clear as the Biblical text would appear. In an article posted on the internet,
37 "Kosher Worms and Insects", Rabbi Ari Enkin a researcher and writer of contemporary halachic issues and the author of
38 the "Dalet Amot of Halacha" series, lists some of the exceptions to the rules of the text.¹

¹ There are also a number of circumstances in which the consumption of worms is permitted. For example, worms which are found within a fish are often permitted to be eaten along with the fish itself. There are generally two types of worms which can be found inside a fish – those in the flesh of the fish and those in the intestines. It is only the worms which are embedded in the flesh of the fish which are permitted.[5] Worms which are found in the intestinal tract, evidence of having been recently swallowed, remain prohibited.[6] For more on this issue, see here: [link](#).

Similarly, one will often find worms in cheeses that are hard,[7] aged,[8] or otherwise prepared in a way that gives the cheese a very sharp taste. These worms are kosher and are permitted to be eaten as long as they remain embedded within the cheese. However, if they leap off or otherwise separate from the cheese, they are then forbidden to be eaten.[9] Some authorities even allow the consumption of worms which have separated from cheese as long as they have not gotten further than the plate or serving dish.[10] Additionally, it is permitted to eat a worm that grew in a fruit that had been detached from its source of growth and had never been exposed to the air. However, worms and other insects which grew in a fruit while it was still attached to the tree are forbidden to be eaten.[11] If one is in doubt whether a worm that is found in a fruit is of the permitted or forbidden species, the fruit may not be eaten.[12]

It is permitted to grind stalks of wheat which are found to be wormy as long as the flour will be properly sifted following the grinding.[13] It is also permitted to eat burnt or pulverized worms, insects, and other non-kosher products when there is a medical benefit in doing so.[14] Honey is a kosher product even though it is the by-product of non-kosher insects.[15]

Another exception to the prohibition on consuming insects applies to certain aquatic species. As mentioned, insects are only prohibited if they grew in seas, rivers, or lakes. Worms and insects that grew in water originating in containers or cisterns are permitted to be consumed when swallowed in the course of drinking directly from such sources.[16] For example, one who is forced to drink water directly from a well would be permitted to do so without having to first check the water for any bugs. On the other hand, one who

transfers well water into a cup would be required to first check the water before drinking it as any bugs which might be present would no longer be in their natural source, and are therefore forbidden accordingly.[17] In the olden days unpasteurized vinegar would often breed certain bugs which were permitted to be consumed along with the vinegar.[18] Such vinegar is no longer on the market today. It is interesting to note that the Torah only prohibits insects which are visible to the naked eye.[19] Insects which are only visible through a microscope are permitted to be consumed in the normal course of eating.[20] So too, insects that have fully withered and dried are often permitted, as well. Even when worms and bugs are technically permitted, it is commendable to make the effort not to consume them due to the concern of “baal teshaktzu”, the prohibition to engage in anything which might be considered disgusting.[21] Indeed, even worms that are technically permitted to be eaten should be avoided as they are said to cause both spiritual and physical harm.[22]

Some time ago a controversy erupted in New York City concerning bugs which were repeatedly found in the public water supply. As a result, a number of halachic authorities ruled that the New York City drinking water must be filtered prior to consumption. Other authorities insisted that this was not required as the bugs were not visible to the naked eye and therefore permitted. It was also suggested that the municipal water supply chain is halachically identical to a cistern in which case there would be no prohibition on consuming such bugs. According to the latter approach, however, the water would only be permitted when drunk directly from the faucet – certainly an unrealistic arrangement for a household that regularly drinks tap water. [23] [1] Vayikra 11

[5] Y.D. 84:16

[6] Chullin 67b

[7] Taz; Y.D. 89:4

[8] Aged cheese is loosely defined as being aged six months or more. Shach Y.D. 89:15

[9] Y.D. 84:14, Rema Y.D. 84:16

[10] Shach Y.D. 84:46

[11] Y.D. 84:6

[12] Y.D. 84:7

[13] Y.D. 84:14

[14] Y.D. 84:17

[15] Y.D. 81:8

[16] Y.D. 84:1

[17] Rema Y.D. 84:1. For more on bugs and water see: Darkei Teshuva 84:9,28

[18] Aruch Hashulchan Y.D. 84:36, Binat Adam; Klal 38:49, Tuv Taam V'daat; Kuntres Acharon 53

[19] Y.D. 84:4

[20] Aruch Hashulchan YD, 84:36 [21] Avoda Zara 68b

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44 In our time religious authorities have made insect inspection a regular part of kosher preparation in homes and in
45 restaurants and catered parties. The intricacies and the time involved in implementing their standards has had the effect
46 of significantly raising the cost of kosher food to consumers and made keeping a kosher home more difficult in an era
47 when time to prepare meals in the modern home is diminished in what is often a 2 working parent home.²
48 Part of the change is that many of the insecticides that were available to the market in the past have been prohibited and
49 so insect infestation has increased,³ but as we have seen in Rabbi Enkin's article there are many additional factors , and

[22] Shabbat 90a

[23] For more on the New York Cite water supply controversy see: The Laws Of Pesach (Rabbi Blumenkrantz) Chapter 29

² In the OU Kosher Guide to checking Produce and More there is a chart on how to inspect various fruits and vegetables. For Broccoli they write , " Fresh broccoli, stems: Wash thoroughly. Fresh broccoli, whole: Parboil for no more than 1 minute. Segregate each head individually. Look carefully at the branched area of each floret, in the crevice formed by two branches forking out from a single trunk like a Y; spread apart each floret head and look through the florets, into the branch area; if 1 or 2 insects are found, continue examining the remaining sections of head; if 3 insects are found, the entire head should be discarded". For open leaf lettuce they write, " Cut off lettuce base; soak lettuce in cold water with several drops of concentrated, non-scented liquid detergent or vegetable wash; agitate leaves using a strong stream of water to remove all foreign matter and soap from leaf surface or use a vegetable brush on both sides of the leaf; check leaves under direct light." If that was not tedious enough the chart states, "This is only a brief summary to serve as a quick reference guide . Please do not rely on this summary alone."

³ It is estimated that the average American eats 1 pound of unwanted bugs every year, <https://www.rodalorganiclife.com/wellbeing/grossest-bugs-you-dont-know-youre-eating/slide/1>

50 following the most stringent positions is not the only option, neither today nor through the many centuries of halakhic
51 rulings.

52 We will examine the literature on what constitutes a presumption of infestation that needs to be dealt with, or conversely
53 what constitutes a presumption of non infestation, that would eliminate the need to examine every fruit or vegetable.

54 If inspection is needed what is the standard for the inspection?

55 Is the naked eye sufficient or are additional external tools ranging from light boxes to jeweler's loops or magnifying
56 glasses needed?

57 Are we required to take courses to learn how to discover bugs that we would otherwise not see with the naked eye?⁴

58 If actions need to be taken, what treatments are needed to be implemented, ranging from washing with water one or
59 more times, severe agitation, or solvents that loosen bugs from their hosts?

60 Are there some fruits or vegetables that are so infested with bugs that dig in deep to their hosts that nothing will release
61 them?

62 Is Bittul (nullification) a tool that we can use?

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65 Determining the Infestation Level of a Crop.

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67 In halakhah, there are three levels of insect infestation. Foods typically infested with insects the majority of the time at an
68 infestation level of 50% *of the crop* or higher are considered muḥzak betola'im, and one must always check for bugs
69 mid'oraita (as a Torah obligation).

70 Foods that do not have insects the majority of the time but are nevertheless consistently infested must be examined
71 mid'rabbanan (as a Rabbinic obligation).⁵ This level is called miyut hamatzui and is often assumed to be 10% *of the crop*
72 or higher. ⁶

⁴ Kashrus magazine has a website called ,BugFreeKosher, which offers a course " You can't claim to be bug-free until you've learned how to spot insects, how to check fruits and vegetables, and you've been successful. Learn how by signing up for a course. Call us at 718-336-8544; kashrus@aol.com. "

⁵Shakh Yoreh Deah 84:28 , indicates that examination of food products for the presence of insects is required as a matter of normative law if insect infestation represents a mi'ut ha-mazui , and Siftey Daat 84:28

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74 Foods whose level of infestation is infrequent and inconsistent, (typically below 10%) fall into the category of miyut
75 she'eino matzui and are permitted without checking at all.⁷

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77 How does one determine the level of infestation in the vegetables before you ?

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79 As a homemaker I'm not sure there is a way to determine the status of any crop at any given time. In a global market at
80 any meal we could be eating fruit and vegetables from all over the world. Kashruth organizations have their own ways of
81 determining a crop and then deciding the status of the crop and whether they can authorize or certify a crop. The OU in a
82 "Summary of Halchic Issues Regarding Insects " Feb. 16 2005 states, ". There are two methods of calculating whether a
83 vegetable does or does not have a 10% infestation:

⁶ Teshuvot Dvar Shmu'el, no. 260. Mishkenot Ya'akov, Yoreh De'ah, no. 17, asserts that 10% constitutes a mi'ut ha-mazui. Bedikat ha-Mazon keHalakhah reports that this position was also endorsed by R. Shlomoh Zalman Auerbach. However, the same author reports that R. Joseph Shalom Eliashiv, R. Nissim Karelitz and R. Chaim Kanievsky maintain that mi'ut ha-mazui should be defined as 5%. In the second edition of that work (Jerusalem, 5765) Rabbi Eliashiv is quoted as maintaining 4% is a mi'ut ha-mazui. R. Samuel ha-Levi Woszner, Teshuvot Shevet ha-Levi, IV, no. 81, challenges the relevance of the sources upon which that definition is based and asserts that examination may be required even when the percentage is much lower. **However, Shevet ha-Levi fails to present a precise definition of mi'ut ha-mazui and implies that a decision to declare examination mandatory is to be made "in accordance with the judgment of the decisor."** Cf. also, Teshuvot ha-Rivash no. 191, who asserts that a mi'ut ha-mazui is to be defined as a frequency close to one half (karov le-mehezah)

⁷ Mishkenot Yaakov Yoreh Deah 17

84 a. PRODUCT: 10 heads of lettuce or 10 containers of blueberries are checked and if one or more bugs are found then the
85 batch is rejected. This is the opinion of Rav Elyashiv and Rav Shlomo Zalman Auerbach. Rav Belsky accepts this opinion.

86 b. Serving: 10 servings of lettuce or blueberries are checked and if one or more bugs are found then the batch is rejected.
87 This is the opinion of Rav Schachter who reasons that a vegetable is permitted if less than 1 out of 10 people eating from
88 it will eat a bug.

89 3. Generally, there is little practical difference between any of the aforementioned opinions because most types of
90 vegetable either clearly do or do not contain a miut hamatzui of bugs according to all opinion. In cases where a
91 disagreement occurs, the position is formulated based on a consensus of its Poskim."

92 But this tshuvah is being written for homemakers and caterers and restaurants so the process of determining a whole
93 harvest from a field for the purpose of certifying the whole crop is outside our scope.

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95 There are a number of ways that we can potentially learn the status of the fruits and vegetables before us. Kashruth
96 agencies announce when a certain crop is highly infested, muhzak betola'im, or infested enough, miyut hamatzui, and
97 needs inspection, or when a crop does not need to be inspected because of low levels of infestation, miyut she'eino
98 matzui.

99 In addition we can avoid foods that are *often found to be more* infested like organic raised crops that come unwashed
100 directly to us from farms.⁸

101 Unfortunately many hashgahot have become stricter in their definitions of infestations and cast a broader net over the
102 produce. In addition many consumers do want the organic and farm to table food available to us from farmers' markets
103 and consumer supported agriculture. Therefore the need to understand how and when to inspect fruits and vegetables
104 becomes important. On this front there are considerably more leniencies to rely on than one might have assumed based
105 on all the publicity on this subject.

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107 In Hamodia Magazine July 19, 2006, Rabbi David Bistricher, a rabbinic coordinator for the Orthodox Union wrote about a
108 question in 1986 that was sent to Rabbi Shlomo Zalman Auerbach and Rabbi Joseph Shalom Elyashiv, about vegetable
109 checking requirements for restaurants and caterers. Because of the large volume of vegetables there was a worry that the
110 inspection would not be done correctly.

111 In his response Rabbi Auerbach concluded leniently, (Minkhat Shalom 2:63) that checking would not be required.
112 Several reasons were given and much of the responsum was based on the teshuvah of the Rashba and agreed to in the
113 S.A. Y.D.84:9 . The Rashbah writes that cooked vegetables, which ordinarily require checking but cannot be examined
114 after cooking are permissible after the fact. He provides two reasons. The first is based on the law regarding checking the
115 lungs of an animal after slaughter. If the lungs were lost we cannot assume the animal is a treifa,(not kosher).⁹ Likewise
116 he concludes that if the vegetable cannot be examined we do not assume that it contains an insect. Furthermore he
117 suggests that there is an issue of safek sefeka, a doubt on a doubt, that allows us to be lenient. The first safek, is whether

⁸ <https://www.100daysofrealfood.com/bugs-in-my-organic-food/> In a private correspondence with the author ,Professor Joe Regenstien, a food scientist from Cornell wrote, "With respect to your issue, I strongly agree with your position, but not sure how much actual data might exist comparing organic versus traditional crops. I think the key is that these crops are proud of the fact that they use less pesticides, i.e., they use some natural pesticides that are simply not as effective. So logic would dictate that they have not made the same effort as traditional crops to be insect free. Therefore, one would have to be more rigorous in doing the inspection".

⁹ Yoreh Deah39:2

118 an insect is actually in the vegetable; an additional doubt is that if an insect was present perhaps it disintegrated and
119 became nullified in the food during the cooking. He does limit this ruling only when the infestation is at the level of miyut
120 hamatzui.

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122 Rabbi Elyashiv (Kovetz Teshuvot 74) agreed with Rabbi Auerbach's conclusion but he disagreed on a number of the
123 points that led to the decision. He writes that since restaurants and caterers used large quantities of vegetables it is
124 difficult to assume that infestation levels in a batch would be limited to miyut hamatzui, and the vegetables therefore
125 should be considered as muhzak betola'im. This means that an insect is certainly present and so we do not rely on a
126 double safek. But he did agree with the other position of the Rashbah, which compared checking vegetables to inspecting
127 the lungs of an animal and this could be relied on during a shaat hadehak.

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129 Given the large amount of vegetables to be checked by a synagogue caterer or a restaurant and the time and cost of
130 procuring labor for the inspection we can consider the circumstances a shaat hadehak.

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132 WHAT ROLE DOES THE PRINCIPLE OF BITTUL (NULLIFICATION) PLAY IN PERMITTING BUGS?
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134 Rabbi J. David Bleich, in an article in Tradition 38:4, 2004 writes on the topic of

135 " BOILED WATER AND COOKED FOOD" :

136 "There are circumstances in which bittul, or nullification, may be applicable. With regard to fruit that requires examination
137 for possible insect infestation, Shulhan Arukh, Yoreh De'ah 84:9, rules that, if the unexamined fruit has been cooked in a
138 manner that renders subsequent examination impossible, post factum, the cooked fruit is permissible. As explained by
139 Shah, Yoreh De'ah 84:29, that ruling is predicated upon the principle of sefek sefeika or "double doubt," i.e. first, the
140 presence of an insect is doubtful and secondly, even if present, it is possible that the insect has been crushed and hence
141 has become nullified in the larger quantity of permissible foodstuff. Citing earlier sources, Shakh concludes that, in a
142 locale in which infestation by insects has been established "huhzeku," the presence of insects in the fruit must be
143 regarded as tantamount to a certainty and hence the food is forbidden. 44 However, Taz, Yoreh De'ah 84:17, disagrees
144 with Shakh in maintaining that, upon cooking, the foodstuff is permissible even if it is known that such fruit is commonly
145 infested. According to Taz, even if there is but a "remote possibility" (zad rahok) that no insect was present, the food is
146 permissible on the basis of the principle of sefek sefeika. 45 Hokhmat Adam 38:5 explains Taz' position on the basis
147 of the fact that the rule that a beryah cannot be nullified is the product of a rabbinic edict. Hence, in principle, if there is a
148 question with regard to whether the prohibited organism is still a beryah or whether it has lost that status by virtue of

149 having become crushed, the food may be regarded as permissible on the basis of the rule that rabbinic edicts do not
150 extend to situations of doubt. That principle, explains Hokhmat Adam, does not apply in cases of itkhazek issura, i.e., in
151 situations in which the object was known with certainty to have been forbidden and the sole question is whether its status
152 has changed. Hence, explains Hokhmat Adam, Taz maintains that, so long as there exists even a "remote possibility" that
153 there never was a forbidden insect in the fruit, the foodstuff was never known to have been forbidden (ithazek issura) and
154 hence, despite the fact that the majority of such fruit is infested, the cooked fruit is permitted because of the possibility that
155 any organism that was present may have been crushed. Since it is certain that the insect represents but a tiny fraction of
156 the entire quantity of cooked food, the resultant doubt is only with regard to whether the rabbinic edict canceling
157 nullification in cases of beryah is applicable. Since the doubt is with regard to the applicability of a rabbinic prohibition, the
158 food is permissible.) "

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166 Nevertheless even if there are ways to avoid inspection, who wants to eat bugs? Therefore a reasonable method of
167 inspection would be greatly appreciated.

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169 METHOD OF INSPECTION

170 For both hygiene and aesthetics we would certainly want to wash all fresh produce. During that time of washing it would
171 be natural to implement an inspection. The question becomes what are the satisfactory minimum requirements to inspect
172 for bugs? Is an inspection with the naked eye satisfactory?

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174 Again Rabbi J. David Bleich in a masterful article in Tradition 38:4, 2004 reviews much of the halakhic discussion on the
175 subject as a prelude to dealing with the copepod question that became a cause célèbre in New York City water.

176 These tiny aquatic crustaceans are millimeter-long zooplankton common both in the ocean and in ground water. These
177 creatures have a thick body, long antennae and numerous legs. One of the many issues raised in that discussion had to
178 do with whether copepods were visible to the naked eye.

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180 As Rabbi Bleich frames the question," In a nutshell, the problem and its resolution requires a determination of whether, in
181 seeking to abide by the commandments of the Torah, a Jew must be concerned with subvisual phenomena or only with
182 that which is detectable upon gross observation?" ¹⁰

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184 This then is the question we need to resolve as it affects when and how we are required to inspect for insects in our food.

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186 A main source with regard to the issue of microscopic organisms is the comment of R. Yehiel Mikhal Epstein,¹¹ who
187 writes;

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189 "I have heard that every drop of water, and particularly of rainwater, is full of miniscule creatures that the eye cannot see.
190 In my youth, I heard from a person who had been in distant places and saw in water, by means of a lens of exceedingly
191 great magnification, [i.e., that magnifies] tens of thousands of times, many species of creatures. In light of this, how may
192 we drink water . . . ? Indeed, the truth is that the Torah did not forbid that which the eye cannot perceive, for the Torah
193 was not given to angels. For, if not so, many scientists have written that the entire atmosphere is also full of extremely
194 miniscule creatures and that when a person opens his mouth he swallows a number of them Even if this is so, since
195 the eye cannot perceive them, it is of no significance. However, that which the eye can see, even [if only] against the sun
196 and even if it is the tiniest of the tiny, is a veritable insect."

197 Rav Moshe Feinstein also discounted the acceptability of microscopic evidence.¹²

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¹⁰ Tradition 38:4 2004 p73

¹¹ Arukh ha-Shulhan, Yoreh De'ah 84:36

¹² Iggerot Mosheh, Yoreh De'ah, II, no. 46

203 It is the policy of the OU that, " Bugs which are not visible to the naked eye are not forbidden because Hashem didn't
204 expect us to check our fruit with a magnifying glass or microscope.¹³ There are small bugs which can be seen as dark
205 spots with the naked eye but it is impossible to discern that they are bugs unless one uses a magnifying glass. People
206 who are experienced at checking vegetables for bugs can identify these spots as bugs without using a magnifying glass. "

207 May we eat vegetables which contain these spots?

208 There are Poskim who say, based on Responsa Rashba I:275 which
209 is cited in part in Rema 84:6, that if experience has shown that such "spots" are in fact bugs then one may not eat the
210 vegetable without removing the spots.

211 Rav Schachter, posek of the OU, clarified that this is limited to spots which the average person can learn to identify as
212 bugs with a minimal amount of practice. Bugs which can only be identified by "experts" are not forbidden.

¹³ OU, summary of halakhic issues regarding insects, February 16, 2005

213 If the dark spots discussed above are not identifiable as bugs but are seen to “crawl” across the fruit or vegetable then
214 they may not be eaten."

215 From this statement we see that the OU authorities have ruled that if the average person who is not trained to discern
216 bugs does not identify a non moving speck as a bug then even if it is a bug it is not forbidden.

217 I would also add that in the Talmud (BT Shabbat 74b) in a discussion on the melakha of spinning wool they talk of the
218 women in the desert (Ex 35:26) who could spin wool while it was still attached to the sheep but the gemara rejects the
219 use of this case as a precedent because the women in the desert had extraordinary skills and "hokhma yetera
220 shaani...". Spinning wool on sheep is extraordinary and so if done on Shabbat it was not a violation of an av melakha,
221 but we do not learn lessons for the rest of us from those with extraordinary skill. So too in seeing bugs there is normal
222 wisdom and extraordinary skill, and normal is the standard that we should be held to.

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224 Rabbi David Bistricher concludes in his article in Hamodia, "The position of most poskim is that Torah-observant, God
225 fearing Jews should be capable of identifying insects without extraordinary means (See Darkhei Teshuvah 84:94, Aruch
226 Hashulhan Yoreh Deah 84:36, Igrot Moshe Yoreh Deah 2:146). Standard insect characteristics to look for when checking
227 include antennae, legs and wings. If these features are noticed, the insect is prohibited regardless of its size." ¹⁴

¹⁴ Hamodia July 19, 2006

228 In an article in Daf Hakashrus Vol.25/No.1 Nov 2016, *Rabbi Bistricer* again reiterates the OU position that, "Magnification
229 is not required when checking, although it may be used as an aid for training purposes or to help check faster. Insects that
230 cannot be properly identified whatsoever unless magnification is used , are permitted.

231 He cites Shelot Utshuvot Tov Taam Vedaat Kuntros Aharon 2:53 dealing with checking rice with magnification, that we
232 do not have to worry on anything found out by magnification for either leniencies or stringencies. And the Binat Adam, 34
233 and Arukh Hashulhan Y.D. 84:36 permitted that which could not be seen by the naked eye using only sunlight.

234 If that is the halakhic standard why is there so much discussion in the Jewish media about bugs? Why are there
235 hashgaḥot that refuse to serve berries or brussel sprouts or broccoli? Why are there light boxes and mashgiḥim spending
236 hours of their day looking through every leaf of every vegetable that will be served in the restaurant or catering hall that
237 day?

238 I believe that the answer can be found in the quest for the Jewish "holy grail", the bug free meal; and those who market
239 their hashgaḥot have been judged by the intensity of their pursuit. Yet the reality is that no one has been able to meet
240 that goal. I have been monitoring the literature, the rulings and changing practices for over 15 years, though the pursuit to

241 find bug free vegetables can be documented to an attempt 35 years ago ¹⁵ and the only consistent result has been the
242 creation of the newest system to be put into place because the previous "savior method" failed to produce the result.

243 At first there was triple washing, then when that proved unsuccessful there was washing with special soaps that would
244 loosen the bugs from the plant and would then make washing successful. When that failed there was individual
245 inspection of every leaf with a light box. Meantime there were attempts to only eat vegetables grown in special hot houses
246 that were devoid of bugs, but that never worked perfectly and the amount of product available is too limited and too
247 expensive. ¹⁶

248 The light box method though incredibly labor intensive and therefore expensive (and I don't believe widely practiced in
249 most private homes¹⁷) has also failed to meet the goal.

¹⁵ Kashrus magazine October 2016 P 40

¹⁶ The Badatz of the Eida Haharedit recently released and promoted its new logo on Gush Katif greens (items grown under controlled conditions)stating,
"Specially grown leafy vegetables, approved on condition of washing. It is required to separate the leaves, to soak them in soapy water for 3 minutes and to
wash them off very well under the faucet"

¹⁷ While on a kosher tour in South Africa I asked the assigned mashgiach what he did about vegetables. He told me he was trained and required by his Vaad to
wash every vegetable and to use a light box for every leaf. His father was an Orthodox Rabbi and I asked him if his mother did the same at home? He gave me
this incredulous look and said his family was more liberal and his mother didn't do what he was doing while on assignment for the Vaad.

250 In an article in Kashrus Magazine October 2016, entitled, "What is The Best Method For Checking Vegetables?" the
251 newest entry in the field is the thrip mesh or shmatta bedikah. Rabbi Tendler of the Star-K reports, "there is no question to
252 us that it is far more effective than the traditional leaf by leaf methods. We found years ago that even trained mashgichim
253 who checked leaf by leaf and then tried the thrip cloth method, found bugs that had been missed using the leaf by leaf. It
254 is also much faster and simpler for large quantities." ¹⁸

255 Unfortunately like all previous new methods this too is not a universally accepted position. Rabbi David Kayser of the
256 Atlanta Kashruth Commision, the AKC said, " I prefer checking leaf by leaf though it is more time consuming. Often, I must
257 use a quicker method and have used the shmatta method. I personally check a sample of the leaves afterwards. In the
258 past, I have found worms in the leaves as well as aphids attached to the leaves that did not show up in the cloth. Napa
259 Cabbage and Red Leaf lettuce are the most challenging for me to check".

¹⁸ Thrip mesh is a 60 micron piece of mesh. The shmatta bedika as described by the Star K is to; 1 Wash produce well.(note: Use warm water for broccoli and cauliflower.) 2 Prepare a basin with water and a non-bleach and non-toxic dishwasher detergent solution. The water should feel slippery. 3 Agitate the produce in the solution for 15 seconds. (Note: For broccoli and cauliflower soak for 30 seconds before agitating.) 4 Remove the produce from the basin and shake off excess water over the basin. 5 Pour water through the thrip cloth. 6 Check the thrip cloth over a light box for any insects. 7 If insects are found, repeat steps 1-6. This can be done up to three times. If insects are still found on the third try, the produce should not be used. To see a video of the shmatta bedika go to <https://www.star-k.org/articles/articles/insect-checking/1851/thrip-cloth-method/>

260 Rabbi Tandler acknowledged that broccoli is by far the most challenging to check because "it takes significant strength to
261 ensure proper agitation is achieved that will allow the water to get in between the florets. Not all of our mashgichim are
262 trained in or perform vegetable checking, but even among the mashgichim that are only a handful have been approved to
263 check broccoli. "

264 If only some mashgihim are trained to check vegetables , and a small fraction of them can check broccoli what do we
265 expect the homemaker to do? ¹⁹

266 The same article reported on a recent check of Manhattan supervised restaurants that found insects in far too many
267 establishments. There was even a video taken of a Caesar salad without dressing , bought at a certified restaurant *and*
268 found to contain eleven insects.

¹⁹ The most recent review by the CRC of their fruit and vegetable policy, dated 07/11/17 acknowledges the near impossibility of a comprehensive inspection by a homemaker or even a regularly trained mashgiah when they warn:

"WARNING!! This guide is primarily directed towards those experienced in the inspection of produce for insects. If you have never done so in the past, the cRc does NOT recommend that you start on your own, assuming that by reading the guide and policy, you are experienced enough and capable to do so. The actual insect may not be what you are expecting. They are not flies, roaches or spiders, although these would certainly be a problem as well. Most of them are very small and hard to find due to their size and color, with some being as small as the period at the end of this sentence."

269 Bags of OU certified barley were later found to be infested. Yet the pursuit for bug free vegetables and fruits continues
270 with everyone claiming that their system is better than the others and therefore the others are inadequate or suspect.

271 In a follow up article, Kashrus Magazine issue 183, March 2017, *asked* 1371 Hashgahot to find out their policies and
272 share them with the public. One hundred responded though not all permitted their responses to be published. Some used
273 the shmatta method, some a light box, some the hazakah method where by a small sample is checked and if bug free
274 the rest is allowed uninspected. *What* became obvious is there were considerable differences between them and how
275 often the decisions were mutually exclusive of each other.²⁰

²⁰ In Nashville hazaka is used for most vegetables unless it is an organic crop which is known to have issues. In such a case they do leaf by leaf inspection.

In Dallas no shmatta bedika is done but large lettuce is washed leaf by leaf. Small leaf vegetables such as parsley or mesclun mix are washed with soap and the clean water is checked.

In Agoura Hills California the shmatta bedika was tried and abandoned because it was cumbersome, difficult to work with and only effective when dealing in small quantities. Therefore for their caterers, restaurants camps etc. they use only romaine hearts, triple washed salad greens

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277 Therefore in determining our recommendations we are reminded that the pursuit of bug free is not in our grasp and that
278 the halakha long ago relieved us of this undoable burden.

that are then washed and inspected by their mashgihim and the romaine leafs are looked at leaf by leaf. The triple washed mixes are washed in a sink basin with a vinegar or salt solution but NEVER with dishwasher detergent that many others use because it is prohibited by the FDA due to the toxicity of the chemicals, some of which accumulate in the body over time.

In Las Vegas they will use the shmatta bedika but not the hazaka method but you will not get artichokes, broccoli, broccoli rabe, brussel sprouts, cauliflower and parsley. Atlanta uses the shmatta bedika, leaf by leaf, as well as the hazaka method for iceberg lettuce and cabbage.

Finally from Lakewood you get a harangue about the ineffectiveness of the shmatta method. "A shmatta bedika by one that is not trained and tested is not worth anything. You'll still have infestation. By celery or other veggies with leaf miners, a shmatta bedika does not work, Likewise, for thrips in onions scallions etc., a shmatta does not work. One must be trained in the leaf by leaf (" tevias- ha'ayin" method). Just looking without training does not work."

279 So when preparing fruits and vegetables what *should the consumer do* ?

280 As demonstrated above, our halakhic standard is a visual inspection with the naked eye under sunlight or its artificial
281 equivalent. This inspection would satisfy our obligations to refrain from eating bugs. What follows are some practical
282 suggestions for fulfilling this obligation. It bears repeating that while there are many guides and systems for inspecting
283 produce and those who wish to use them certainly may, doing so is above and beyond the minimal halakhic standard
284 needed to fulfill the Torah and the Rabbis' rulings.

285 The inspection begins when purchasing the produce. *One should* search out healthy looking, blemish free produce. If
286 onions or cabbage have a gash or a crevice in their outer leaves it is a strong sign of a probable presence of bugs.
287 Discoloration anywhere in the product is a sign to skip the item.²¹ Romaine hearts rather than whole romaine lettuces
288 should be purchased because the outer leaves have a much greater degree of bugs (alive or dead) caught in the curls of

²¹ . For a long time I stopped buying brussel sprouts that were pre-packaged because when I came home I discovered some were yellow. I sliced one open and in the midst of the yellow was a wiggling worm. I now only buy loose ones that I can inspect or prepackaged that have a lot of visibility and then inspect each piece and if the outer leaves are green but dirty I remove one layer at a time until I see it blemish free.

289 the leaves. If the bottom of the bag is filled with a brownish color it should be avoided. Whenever *possible* one should buy
290 pre washed salad mixes. Some may wash these as well, for an added precaution.²²

291 Organic products and or farmer's markets or direct from the farm foods have a greater risk for bugs, but come with the
292 benefit of reduced carbon footprint, and or no or lesser amounts of pesticides or storage issues. It is permissible to use
293 them but the buyer should be aware that greater caution including more rigorous washing and closer inspection is
294 needed .

295 Some may prefer to begin with a soaking in a container even before the inspection of the vegetable to allow for dirt and
296 bugs to float to the top if they are present . If in the visual inspection there is any dirt or something that cannot be
297 identified , the produce should be placed in a sink or a basin with water and agitated to see what comes to the surface.
298 If it is dirt or a bug the water should be drained and the process repeated. If necessary it should be repeated a third
299 time. If after three times bugs are still found the product should be given away or discarded.²³

²² Some bags of prewashed produce *still* advise washing the product before using

²³ S. A. Y.D. 84:10

300 Broccoli and cauliflower should be washed and agitated in water with some added salt or vinegar which causes the bug
301 to detach from the vegetable and float. Then when doing the above inspection, bugs can be spotted and removed .

302 For cabbage the top few leaves should be removed before beginning washing and inspection. Green asparagus after
303 the washing should be inspected carefully as the tight leaves of the top can conceal bugs.

304 Strawberries should be cut above the green leaves section and into the first part of the fruit, then washed as described
305 above.

306 According to the CRC's guide, raw or dry beans and grains *processed in the United States and most other countries are*
307 *centrifuged to remove bugs. As long as beans are stored in cool and dry conditions they will remain bug-free for many*
308 *months. For this reason, there is no need to check beans for insect infestation in the United States. Beans and grain*
309 *processed in another country or if you have reason to believe the beans may not have been stored properly may require*
310 *further inspection for insects.*²⁴

²⁴ CRC July 11 2017 guide , <http://www.crcweb.org/fruit%20&%20veg%20guide.php>

311 A sealed bag or box of pasta or grains could develop an infestation that grew while in a consumer's pantry but was not
312 apparent when it was bought , so a cursory inspection before use is recommended.

313 Frozen whole vegetables have the same status as fresh vegetables and would need the same inspection method.

314 According to the CRC guide frozen fruit have less of a concern than fresh fruit. Their guide to frozen fruit states, " All
315 canned, jarred and frozen fruit is acceptable without certification unless they contain any natural and/or artificial flavors or
316 *colors, Carmine (Used for Coloring in Cherries), grape juice or the words "fruit juice", or are canned in Israel or China.*" ²⁵

317 At the same time they currently do not permit fresh raspberries, blackberries mulberries, and allow strawberries only after
318 a draconian preparation which would make the consumption of strawberries pointless. I would advise the above
319 mentioned regiment of washing and inspecting the berries and if no bugs are visible they may be consumed. If bugs are
320 found and after three washes they continue to be present they should be discarded.

²⁵ China has a horrible reputation for food adulteration and Israeli produce has issues of Maaser and trumot.

321 If you are eating a salad and discover a bug you should remove the bug and inspect your salad. If you find one more bug
322 remove it as well. If you find 2 or more bugs discard the salad. ²⁶

323 Psak

324 Bugs in vegetables and fruit are a realistic concern for kosher consumers .Our obligation is to inspect with the naked eye
325 and under sunlight or its artificial equivalent all fresh produce to ascertain that no bugs are visible. The following are some
326 suggestions for conducting the inspection.

327 The inspection begins when purchasing the produce. *One should* search out healthy looking, blemish free produce. If
328 onions or cabbage have a gash or a crevice in their outer leaves it is a strong sign of a probable presence of bugs.
329 Discoloration anywhere in the product is a sign to skip the item.

330 Romaine hearts rather than whole romaine lettuces should be purchased because the outer leaves have a much greater
331 degree of bugs (alive or dead) caught in the curls of the leaves. If the bottom of the bag is filled with a brownish color it

²⁶ S. A. Y.D. 84:10 while referring to cooked vegetables three is the number that if found on the vegetables themselves, raise suspicion that there are more and the food is disallowed. If this is allowed for cooked foods where cooking may have removed the bugs from the food to the sauce, how much more for prepared uncooked food such as is found in a salad.

332 should be avoided. Whenever possible one should buy pre washed salad mixes. Some may wash these as well, for an
333 added precaution.

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335 benefit of reduced carbon footprint, and or no or lesser amounts of pesticides or storage issues. It is permissible to use
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358 the words “fruit juice”, or are canned in Israel or China.

359 If one is eating a salad and discovers a bug, it should be removed and the salad inspected. If another bug is found it
360 too should be removed. If a third or more bugs are discovered the product should be given away or discarded.

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