

COMPARISON OF GAPs GOVERNING

THE GROWING and HARVESTING OF FRESH PRODUCE*

* For an explanation of the various provisions and background on the guidelines, please refer to the *Growing and Harvesting of Fresh Produce* narrative.

| | FDA 1998 GUIDANCE | CODEX PROVISIONS | GLOBALGAP STANDARDS | FSLC STANDARDS | LEAFY GREENS GUIDE | FLORIDA TOMATO RULE | |
|---------------------------|---|--|---|--|---|--|--|
| AGRICULTURAL WATER | SETS OR RECOMMENDS SPECIFIC MICROBIAL STANDARDS FOR IRRIGATION WATER | NO Growers may elect to test water supply using standard indicators for fecal pollution like <i>E. coli</i> | NO | YES Where treated sewage water is used, water quality complies with WHO guidelines If water might be polluted, must comply with WHO guidelines or local standards | YES Generic <i>E. coli</i> standard for well and surface water But different than Leafy Greens Guide generic <i>E. coli</i> standard | YES Generic <i>E. coli</i> standard for foliar and non-foliar applications (edible portion does not contact water) But different than FSLC standard | YES Irrigation water must meet EPA recreational water microbial standard and foliar application must meet EPA potable water microbial standard |
| | SPECIFIES REGULAR, PERIODIC WATER SAMPLING AND MICROBIAL TESTING | NO May be useful in extreme situations (e.g., polluted water source) and in assessing the effectiveness of control programs | NO “Where necessary” growers should have the water they use tested | YES Water analysis determined by risk assessment, which takes into account crop characteristics | YES Each water source tested within 60 days of first seasonal use Well water and surface water tested monthly | YES Includes specific sampling and testing protocol | YES Ground water tested at least annually Surface water tested at least quarterly |
| | ASSESS IMPACT OF ADJACENT LAND ON WATER QUALITY | YES Evaluate production area to determine if surrounding land uses pose potential for polluted runoff | NO | NO | YES Conduct risk assessment to review impact of use of surrounding land on water quality | YES Evaluate land and waterways adjacent to production fields for possible sources of pathogens | YES Consideration should be given to adjacent land |
| GROWING FIELD | CONSIDER PRIOR USE OF GROWING FIELD | NO | YES Where possible, growers should evaluate previous uses to identify potential microbial hazards and analyze for contaminants if prior uses cannot be identified | YES Required risk assessment must take into account site history | YES If field has been used for other than growing produce, shall conduct soil analysis | YES To degree practical, determine and document historical land uses and potential impact on food safety | YES Determine previous usage of land if at all possible and assess potential sources of contamination |
| | PROHIBITS GROWING ON FLOODED LAND | YES Cannot sell ready-to-eat crop that have come into contact with flood waters | NO | NO | YES If fields are flooded by natural causes, product-excluding tree crops and stone fruit—shall not be harvested for human consumption | YES No harvesting within 30 feet of flooding and conduct food-safety assessment of production block before harvest | NO |
| MANURE | PROHIBITS USE OF RAW MANURE | NO Applying raw manure to produce fields during growing season prior to harvest is not recommended Where not possible to maximize time between application and harvest, raw manure should not be used | NO Manure, which is untreated or partially treated may be used only if appropriate corrective actions are adopted to reduce microbial contaminants | NO (Only prohibits use of raw human sewage sludge) | YES Raw or incompletely composted manure must not be used | YES Do not use raw manure or soil amendment that contain un-composted, incompletely composted or non-thermally treated animal manure | NO No raw animal manure from raw material should be used to supplement the soil. |
| | SETS SPECIFIC STANDARD FOR COMPOSTING MANURE | NO | NO | NO | YES Standards for generic <i>E. coli</i> , <i>Salmonella</i> , <i>E. coli</i> O157:H7, and <i>Shigella</i> | YES Standards for fecal coliforms, <i>Salmonella</i> , and <i>E. coli</i> O157:H7 | NO Only properly composted manures are allowed |

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| MANURE | REQUIRES OR RECOMMENDS SAMPLING AND TESTING | NO | NO | NO | YES Compost monitoring plan shall outline sample collection procedures | YES Must have 12- point sampling plan and each lot must be tested before application | NO |
| | STORE AND TREAT MANURE AWAY FROM GROWING AREA | YES Situates as far as practicable from fresh produce production and handling areas | YES Avoid locating in proximity to fresh fruit and vegetable production and secure treatment and storage areas | NO | YES Store so that it does not become potential source of contamination | YES Store and treat at least 400 ft from edge of of crop | NO |
| ANIMAL CONTROL | EXCLUDES ANIMALS FROM GROWING AREAS | YES Exclude domestic animals during growing season. Where there are high concentrations of wildlife deter or redirect wildlife to other crops | YES As far as possible, exclude domestic and wild animals from growing area | NO | YES No animals of significant public health concern are permitted within the area of growing and major corrective action required if animals gain access | YES Do not harvest areas of fields where there is unusually heavy activity by animals or significant risk of it. If significant risk of intrusion, consider fencing and barriers. | YES Exclude domestic animals from tomato fields and use buffer zones to discourage movement of reptiles, amphibians, and rodents |
| | REQUIRES SET DISTANCE FROM CAFOs | NO | NO | NO | YES One mile from end of crop row | YES Interim guidance of 400 feet from edge of crop | NO |
| WORKER HEALTH AND HYGIENE | PROHIBITS SMOKING, EATING, SPITTING, GUM CHEWING IN GROWING AREAS | NO | YES Agricultural workers should refrain from behavior which could result in the contamination of food (such as smoking, spitting, and chewing gum) | YES Hygiene instructions include limiting smoking, eating, and drinking to certain areas | YES Eating, drinking, chewing gum or tobacco, candy and smoking are prohibited in the growing areas | YES Confine smoking, drinking, and eating to designated areas | YES Prohibit eating, drinking, and smoking in production areas |
| | SPECIFIES LOCATION OF TOILETS | YES Within one ¼ mile walk of each laborer's place in field | NO¹ In close proximity to the fields | YES Within at least 500 meters of workers | YES Within ¼ mile of all workers | NO² Field sanitary facility program should address the placement of field sanitation units | YES Within ¼ mile of all workers |
| | REQUIRES DESTRUCTION OF PRODUCT THAT COMES IN CONTACT WITH BLOOD OR BODILY FLUIDS | NO | NO | NO | YES Written policy must require destruction of product that comes into contact with blood or bodily fluids | NO³ | NO |
| FIELD SANITATION | SANITIZE OR DISINFECT HARVESTING EQUIPMENT AND TEST/VERIFY EFFICACY OF SANITATION | NO Mentions sanitation numerous times but does not require testing efficacy | NO Where appropriate equipment should be disinfected on a regular basis but no mention of testing efficacy | NO Disinfection required at least once a year but efficacy testing not required | YES Grower must have a sanitation plan for harvest equipment and must verify efficacy | YES Grower should sanitize harvest equipment and verify sanitation | NO Grower directed to sanitize as needed but not required to verify efficacy |
| | DISPOSE OF DAMAGED HARVESTING CONTAINERS | YES Discard damaged containers that are no longer cleanable | YES Containers that can no longer be kept in a hygienic condition should be discarded | NO | NO | NO⁴ | NO |

¹ Because the Codex Provisions does not specify a particular distance for toilet location, it is characterized as a “No” under this category, even though it does generally direct growers/harvesters to place toilets “in close proximity” to the fields.

² Because the Leafy Greens Guide does not specify a particular distance for toilet location, it is characterized as a “No” under this category, even though it does direct growers/harvesters to address the placement of toilets.

³ Because the Leafy Greens Guide does not specifically require that product that comes in contact with blood or bodily fluids be destroyed, it is characterized as a “No” under this category, even though it does direct growers/harvesters to have a policy on this issue.

⁴ Because the Leafy Greens Guide does not specify that damaged containers must be discarded, it is characterized as a “No” under this category, even though it does direct growers/harvesters to develop a procedure for handling damaged containers.