

**IFSS Framework – Basic Level Gen Eds
B27 Traceability**

Definition: Introductory knowledge, skills, and abilities related to tracking feed and food throughout the supply chain.

Topic Area TLO (Terminal Learning Objective): Describe the role of traceability in feed and food programs.

Topic Area ELOs (Enabling Learning Objective):

- Explain product traceforward/traceback concepts.
- Trace the source of a food.
- Explain a product traceback diagram.
- Explain agency roles in traceforward/traceback.
- Identify components of product traceforward/traceback.

Unit 1: Foundations	TLO Behavioral Anchors - not all-inclusive
<p>Definition: Basic knowledge of traceability related to feed and food programs.</p> <p>TLO: Describe the importance of product tracing.</p> <p>ELOs:</p> <ul style="list-style-type: none"> • Define key terminology. • Explain factors that would initiate a traceforward/traceback. • Explain the difference between traceforward and traceback. • Describe the importance of interagency and industry collaboration. • Describe when traceforward/traceback is utilized. • Describe the primary functions of CORE. • Describe the primary function of ICS. 	<ul style="list-style-type: none"> • The regulator can define what product tracing is: <ol style="list-style-type: none"> a. Difference between tracing (documentation) and tracking (following product) b. Define product (ingredient to finished product) c. Define trackback and traceforward • The regulator has knowledge or awareness of the purpose of product tracing: <ol style="list-style-type: none"> a. Find product source, e.g. grower, manufacturer, importer b. To ensure safe product c. Locate product to remove from commerce d. Identifies responsible or accountable party • The regulator has knowledge or awareness of why product tracing is important: <ol style="list-style-type: none"> a. Provides product manufacturing information b. Identify source of product to determine how adulteration occurred c. To gather information during outbreaks (jurisdiction, interstate violation responsibility) d. Provides information needed for tracking outbreak vehicles e. Establishes scope and depth of a situation f. Identifies potential impact zone or region g. Decreases response time in a recall • The regulator can give examples of product traceback and traceforward. • The regulator has knowledge or awareness of the importance of communication in product tracing situations:

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	<ul style="list-style-type: none"> a. Allow for ease of communication throughout the supply chain b. Information sharing c. Dissemination of information
<p>Unit 2: Preliminary Review</p>	<p>TLO Behavioral Anchors - not all-inclusive</p>
<p>Definition: Analysis of surveillance data to determine if a traceforward/traceback investigation is warranted.</p> <p>TLO: Identify the critical information from the surveillance reports needed for a traceforward/traceback.</p> <p>ELOs:</p> <ul style="list-style-type: none"> • Describe routine surveillance activities that might trigger a traceforward/traceback. • Describe the importance of time frames when reviewing surveillance reports. • Identify the potential health risk indicated by surveillance data. • Describe the subject matter expertise needed to assess surveillance data. • Explain how the RFR contributes to conducting traceforward/traceback investigations. 	<ul style="list-style-type: none"> • The regulator has knowledge or awareness of the product tracing process. • The regulator has an awareness of how products are identified: <ul style="list-style-type: none"> a. Production records: date, run time: b. Labeling info (brand name, ingredients, net weight, etc.) c. Lot numbers or other identification d. Product distribution list e. Firm information (address, key personnel) f. Manufacturer or grower information g. Distributor information h. Shipper info, i.e. trucking company and date shipped • The regulator has knowledge or awareness of the importance of firm history information: <ul style="list-style-type: none"> a. Inspection history • The regulator has knowledge or awareness of the factors to consider for tracing: <ul style="list-style-type: none"> a. Pending imminent health hazards b. Epi findings or ties to foodborne outbreaks c. Product/environmental samples d. Vector and/or vehicle e. Analysis report f. Outbreak demographics g. Target customers h. Date and location of initial finding (a place to start) i. Hazard associated with the product j. Aware of the risk associated with the hazard k. Foodborne illness reporting l. Implicated product(s) and associated products m. Degree of certainty with product n. Consumer complaints • The regulator can list factors to consider during product tracing: <ul style="list-style-type: none"> a. Process or treatment performed on product b. Packaging type or material c. Components of the product d. Intended use of the product
<p>Unit 3: Supply Chain</p>	<p>TLO Behavioral Anchors - not all-inclusive</p>

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<p>Definition: The system of moving raw or manufactured products and ingredients from growing/raising, harvesting, processing, and manufacturing and all distribution points to consumption.</p> <p>TLO: Discuss the complexity of traceability throughout the supply chain.</p> <p>ELOs:</p> <ul style="list-style-type: none"> • Explain the farm to table concept. • Describe major transportation systems. • Describe industry best practices for product traceability. • Describe how foreign suppliers may affect traceability. • Explain how to use a traceback diagram to identify potential points of contamination in the supply chain. • Explain requirements for industry to disclose customer purchases to regulatory agencies. 	<ul style="list-style-type: none"> • The regulator has knowledge or awareness of product flow through the food production chain: <ol style="list-style-type: none"> a. Define supply chain and give an example b. Give examples of food chains c. List stakeholders to the supply chain d. Growing, harvesting, packing/processing, shipping, distributing, manufacturing, point of sale • The regulator has knowledge or awareness of the importance of records: <ol style="list-style-type: none"> a. Accurate b. Legible c. Accessible d. Incomplete or missing records (batch, production, shipping) e. One step forward, one step back • The regulator has knowledge or awareness of the challenges of traceability: <ol style="list-style-type: none"> a. Incomplete or missing product identification b. An ingredient can be used in multiple products with multiple companies c. Distribution can be worldwide d. Language barriers e. The sheer volume of a production run f. Shelf life can vary between perishable and shelf stable • The regulator has knowledge or awareness and knowledge of the challenges of traceability: <ol style="list-style-type: none"> a. Supply chain relations (including regulator) b. Diversity of operations (examples consolidators, repackers, warehouses, importers, shippers) c. Distribution can flow through multiple wholesale and retail chains d. Changing consumer trends <ul style="list-style-type: none"> ▪ Increase in farm to table ▪ Increase consumption of raw product ▪ Cottage foods e. Identifying parties responsible for the product (broker, distributor, firm) f. Proprietary information g. Firm’s definition of the term “lot” (e.g. produce industry) h. Global product identification • The regulator has knowledge or awareness of the jurisdictional issues.
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	<ul style="list-style-type: none"> a. Jurisdictional boundaries b. Awareness of changing authorities through the supply chain
<p>Unit 4: Documentation</p>	<p>TLO Behavioral Anchors - not all-inclusive</p>
<p>Definition: The records needed when doing a traceforward/traceback.</p> <p>TLO: Explain key documents needed for tracing product movement.</p> <p>ELOs:</p> <ul style="list-style-type: none"> • Identify documents used to track product movement. • Describe document retention requirements for the industry. • Give examples of documents that should be collected. • Give examples of key information needed for product tracing. • Describe the importance of collecting documents for the timeframes of interest. 	<ul style="list-style-type: none"> • The regulator can give three examples of types of records for determining traceforward and traceback: <ul style="list-style-type: none"> a. Sanitary transport records b. Signatures c. Invoices/bills of lading d. Production log e. Receipts f. Shipping documents g. Certificates of analysis h. Hazard analysis i. Food safety plan j. Lot number k. Shelf life l. Product label • The regulator can explain the importance of regulatory documentation: <ul style="list-style-type: none"> a. Regulatory notes b. Interview notes c. Photographs d. Product/Process flow diagram e. Sample receipts • The regulator can locate relevant agency policies: <ul style="list-style-type: none"> a. Recall effectiveness checks b. Embargo • The regulator can give six examples of records for determining traceforward and traceback. • The regulator can demonstrate the effective collection of regulatory documentation. • The regulator can describe relevant agency policies.
<p>Unit 5: Communications</p>	<p>TLO Behavioral Anchors - not all-inclusive</p>
<p>Definition: Information sharing and messaging strategies between agencies and stakeholders during a traceforward/traceback.</p> <p>TLO: Discuss requirements for communication during a traceforward/traceback.</p>	<ul style="list-style-type: none"> • The regulator can give examples of status communication: <ul style="list-style-type: none"> a. Keep supervisor apprised b. Email/phone clarifications of assigned tasks c. Keeping firm apprised of progress • The regulator has knowledge or awareness of the existence of agency policy: <ul style="list-style-type: none"> a. Proprietary information b. Communication restrictions

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<p>ELOs:</p> <ul style="list-style-type: none"> Describe the importance of interagency/industry communication. Explain how communication is coordinated during a traceback. Identify requirements related to information sharing. Explain how the ICS system is used to facilitate communications. 	<ul style="list-style-type: none"> c. Affidavits d. Lab reports The regulator can identify three effective ways of communicating during traceforward and traceback: <ul style="list-style-type: none"> a. Interview techniques b. Memos c. Can ask clarifying/relevant questions d. Effective notetaking e. Speaking to the most responsible person f. Clear and concise g. Can follow instructions h. Logic model (timeline of steps) The regulator can identify one record that must be maintained for accuracy: <ul style="list-style-type: none"> a. Transport records b. Supplier list c. Lot numbers d. Facility location e. Accurate contact list f. Regulatory notes The regulator can explain the importance of status communication. The regulator can identify a traceforward and traceback communication policy. The regulator can role play an effective way of communicating during traceforward and traceback. The regulator can identify three records that must be maintained for accuracy.
<p>Unit 6: Technology</p>	<p>TLO Behavioral Anchors - not all-inclusive</p>
<p>Definition: The systems or devices used to enhance traceability.</p> <p>TLO: Explain how technology is used to improve traceability.</p> <p>ELOs:</p> <ul style="list-style-type: none"> Give examples of technology used to track products. Describe how data systems can help identify patterns. Discuss advantages 	<ul style="list-style-type: none"> The regulator can list two means of technology used in traceability: <ul style="list-style-type: none"> a. Wi-Fi access to real-time answers b. Global Positioning System (GPS) c. Electronic records d. Camera technology e. Cell phone apps The regulator has knowledge or awareness of relevant traceability databases: <ul style="list-style-type: none"> a. Reportable food registry b. Radio-frequency identification (RFID) technology c. Shopper identification cards The regulator can give an example of how technology improves traceability: <ul style="list-style-type: none"> a. Ease of exchange

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<p>of using technology to enhance traceability.</p>	<ul style="list-style-type: none">b. Faster verificationc. Economically motivated adulterationd. Finding documentatione. Genome sequencing• The regulator recognizes the impact of communication outlets on traceability:<ul style="list-style-type: none">a. Radio/television reporting for consumer safetyb. Social media• The regulator can give an example of how to use technology in traceability.• The regulator can give an example of a relevant database.• The regulator can give three examples of how technology improves traceability.• The regulator can identify communication outlets.
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