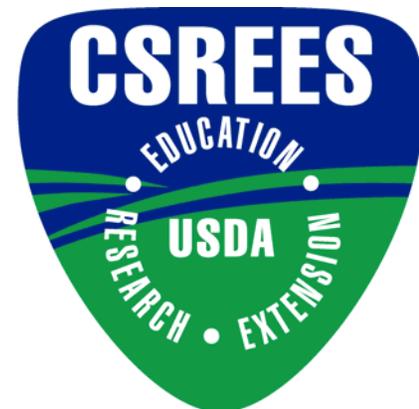
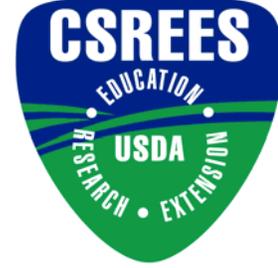


Food Safety 32.0A – NRI

Biological Approaches to Food Safety

- National Program Leader:
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- Program Specialist
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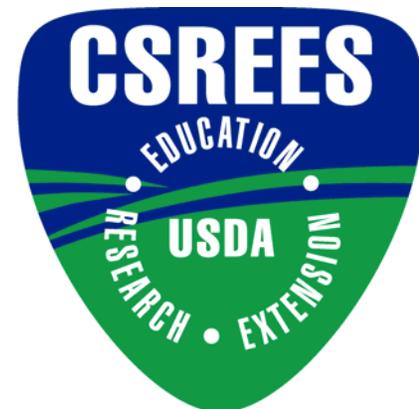


Long Term Goals – Food Safety / NRI 32.0A

- Enhance the knowledge of microbial ecology and development of practical mitigation measures for the reduction of food-borne illnesses**
- Provide for science-based assessment of food-contaminant related trade barriers and regulatory issues**

Food Safety 32.0A Stats

- **Approximately 20 % funding rate for Standard Proposals 2006 / 07**
- **Average award approx. \$360 k**
- **Proposal # reduced 45% in 2006**
- **Maximum award now \$400 k**
- **Typically 3 - 4 years duration**
- **Funding level at \$5.2 M**

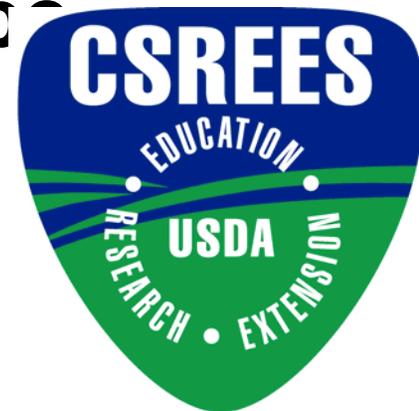


**FY 2008 Priorities for Research –
Applicants must address at least one of
the following priorities.**

- **Human enteric viruses, *Vibrio* spp., *Salmonella* spp., *Listeria* spp, or microbial toxins associated with seafood:**
- **Human enteric viruses, *E. coli*, *Salmonella* spp., *Listeria* spp., or microbial toxins on fresh fruits, nuts, and vegetables:**
- ***Salmonella* spp. or *Campylobacter* spp. in poultry and swine:**
- **Economic or model-based analyses of these priority areas will also be considered for review, especially if they address issues of regulatory burden and impacts on trade.**

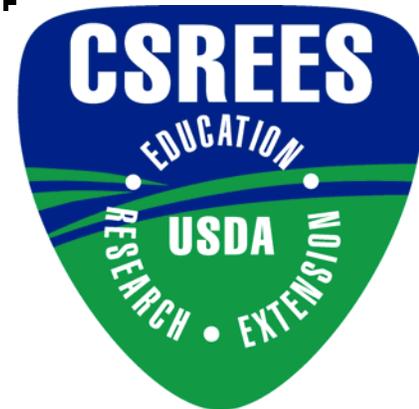
Changes for 2008 RFA

- **Research proposed to examine antibiotic resistance mechanisms must include a direct connection to food safety (e.g., enhanced colonization potential, pathogen load issues)**
- **Therapeutic treatment of humans or the etiology of pathogenesis will not be considered for review**



2008 RFA - Changes

- ***Listeria*** and microbial toxins added to seafood and fresh cut produce areas
- ***Salmonella*** added to seafood priority
- Encourage more socio-economic based proposals, especially those dealing with regulatory and trade issues.
- 32.0 is now 32.0A



32.0 (b) Epidemiologic Approaches to FS

- **Main focus is on epidemiologic design, population-based study**
- **Limit \$1.0 million**
- **Funds around 15-20%**
- **Total budget around \$ 5 million**
- **Deadline December 19, 2007**
- **Contact: Dr. Mary Torrence, (202) 401-6357, mtorrence@csrees.usda.gov**

Epidemiologic Approaches for Food Safety

- **Must have an epidemiologist as an active participant in the study**
- **Primary central focus must be on population-based epidemiologic studies**
- **Can not be primarily laboratory-based**
- **Collaborative research between microbiology and epidemiology**

Epidemiologic Approaches for Food Safety

- **Goals-** Enhance epidemiologic methods; improve the understanding of epidemiology, ecology and risk factors of food-borne disease; provide specific intervention/control strategies; to develop outcome measurements; address emerging issues in food safety and public health
- **Objectives-**
 - Identification or evaluation of risk factors
 - Quantifying effect on food-borne disease from interventions, management strategies, prevention or control programs
 - Development of quantitative outcome measures

Areas for 2007

- Innovative methods or studies to quantify the *effect of existing interventions or management strategies* on food-borne pathogens or disease;
- Development of new *quantitative outcome measures* for the impact of intervention or management strategies
- Identification of new risk factors or quantitative evaluation of existing risk factors that may affect prevalence, transmission, or persistence of food-borne organisms or the prevalence of disease.

Examples of Funded Research

- Epidemiology and ecology of *E. coli* in produce in California
- Dissemination of Cephalosporin Genes
- Quantifying the association between the farm, lot, lairage, and carcass/product of *Salmonella* contamination
- *Salmonella* contamination in retail oysters
- From egg to carcass: tracking the entry of poultry food-borne pathogens into the food chain

National Integrated Food Safety Initiative

- **Purpose**
 - To support projects that address selected priority issues in food safety
 - To support projects that use an integrated approach to solving problems in food safety
 - To support applied research, education and extension programs



What is an Integrated Project?

- **At least 2 of 3 components must be included in each funded project**
 - Research and Education
 - Research and Extension
 - Education and Extension
- **All components addressed should be absolutely necessary to the successful outcome of the project**



Priority Issue Areas for 07

- **Training, education & certification for industry, retail, and consumers**
- **Risk assessment**
- **Source, incidence, and control measures for pathogens in meat and poultry**
- **Alternative food processing technologies**
- **Nat'l support and coordination of integrated food safety programs and resources**
- **Food biosecurity**
- **Control of *Listeria monocytogenes***
- **Fresh and fresh cut fruits and vegetables**



Award Amounts

- **Awards are up to \$600,000**
- **Duration of projects is up to 3 years**
- **Smaller awards for 1 to 2 year grants are available**
- **Special Emphasis Grants are up to \$2.5 M for up to 4 years**
 - **Fresh and fresh cut fruits and vegetables**



Award Statistics – FY 2007

- **81 proposals were submitted**
- **18 grants have been recommended for award**
- **22% success rate**
- **2 Special Emphasis Grants \$2.5 M each**
 - **Fresh cut fruits and vegetables**



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