To: Maryland FFA Advisors
From: Mrs. Ann Platou, Superintendent
Ref: 2021 Maryland FFA Food Science CDE

Advisors,

I look forward to having your students participate in this year's virtual Maryland FFA Food Science CDE on Monday, April 19, 2021.

I have planned the event as close to the National FFA Food Science CDE as possible. I have included in the information below the outline for individual practicums students will be doing throughout the event. There will not be a team activity this year. The team score will be the cumulation of each of the four team members individual scores in the event. There are many resources for this event along with past exams and practicums posted on the National FFA CDE site to assist in preparing your students.

Team makeup — The team will consist of four members with all four members' scores being totaled for the team score.

Teams and/or individuals will not be permitted to use electronic media during the event, unless provided by Maryland FFA. This includes, but is not limited to, cell phones, mp3 players, cameras, etc. *Any participant in possession of an unauthorized electronic device, except a calculator, in the event area is subject to disqualification.*

Requests for student support: Advisors must submit a special needs request form for participants with any academic supports needed. This request must be completed in accordance with the special needs process by March 15st. The event committee will make all reasonable efforts to accommodate students who need extended time or enlarged printing.

Each participant must provide these items: A sheet of paper that is clean and free of notes to do math calculations. Two sharpened No. 2 pencils. Electronic calculator — Calculators used in this event must be non-programmable and non-graphing. Calculators should have only basic functions such as addition, subtraction, multiplication, division, equals, percent, square root, +/- key. No other calculators can be used during the event including cell phones.

Team Product Development Project (400 points possible per team)- Will NOT be included in the virtual event this year.

INDIVIDUAL ACTIVITIES

OBJECTIVE TEST (150 points)

The objective questions administered during the food science and technology examination will be designed to determine each team member's understanding of the basic principles of food science and technology. The test will be created using the textbooks and websites specified in the reference section. Team members will work individually to answer each of the 50 questions. Each person will have 60 minutes to complete the examination. Each question will be worth three points.

PRACTICUMS

1. Problem Solving/Math Practicum (25 points)

Participants will answer a series of five mathematical calculations based on common food science themes. Questions may include nutrition calculations, ingredient quantity, cost benefit analysis, estimation of cost/margin of goods sold, conversions, processing conditions, etc. Each problem is valued at 5 points.

2. Food Safety and Quality Practicums (50 points)

CUSTOMER INQUIRY (25 points)

Each student will be given five scenarios representing general consumer inquiries. Participants must determine if the consumer inquiry reflects a quality or safety issue (two points per scenario) and determine if it is a biological, chemical, physical concern or hazard (three points per scenario).

FOOD SAFETY/SANITATION (25 points)

Each student will be shown a series of five photos and asked to evaluate each of them for a food manufacturing safety or sanitation violation of GMP's. The student will identify the violation as one of the following. Improper Personal Hygiene, Safety Hazard, Food Handling, Improper Chemical Storage, Improper Pest Management, or No Violation. Each photo is worth 5 points.

3. SENSORY EVALUATION PRACTICUMS (40 POINTS)

Triangle Tests (20 points)

Four different triangle tests will be conducted. Participants are expected to identify and select by number, the one sample in the group which is different from the other two samples through visual cues and/or textural differences. No list will be provided for this segment of the practicum. Each test is worth five points.

Aromas (20 points)

Each participant will be asked to identify four different aromas from photos provided of the solid state of each plant/herb/spice. A list of potential aromas will be provided. Each sample is worth 5 points.

10. Apple	11. Banana	12. Basil	13. Butter	14. Cherry	15. Chocolate
16. Cinnamon	17. Clove	18. Coconut	19. Coffee	20.Garlic	21.Ginger
22.Grape	23.Lemon	24.Licorice (anise)	25.Lime	26.Maple	27.Molasses
28.Nutmeg	29.Onion	30.Orange	31.Oregano	32.Peach	33.Peppermint
34. Raspberry	35.Sage	36.Smoke (liquid)	37.Strawberry	38.Vanilla	39.Watermelon
40.Wintergreen					