**Brief Details of Division**

The Agro Produce Processing Division conducts research and development related to primary and secondary processing of agricultural commodities such as cereals, pulses, oilseeds, millets, fruits, vegetables, medicinal plants, etc. The research activities aim at reduction of post-harvest losses, value addition and additional income generation to the farmers. Need-based trainings of the stakeholders are also one of the major activities of the division.

**Thrust Areas**

The division has mainly following three thrust areas under which all research activities are carried out.

1. Value chain for post-harvest management of fresh fruits and vegetables
2. Protocols for food quality and safety
3. Improve nutritional security by value addition of agro produce.

### Contact us

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### Infrastructure Facilities

**Fruit and Vegetable Processing Laboratory**

The laboratory is equipped with the hardware required for fabrication of prototypes for processing of horticultural crops. It has plant/machinery for washing, disinfection treatment (ozone treatment, UV-C treatment), sorting/grading (physical as well as machine vision-based), cutting, peeling, carbonation, drying, packaging and storage of fruits and vegetables, and fruit ripening chamber (ripening of banana, papaya, mango, etc.).

**Grain Processing Laboratory**

The laboratory is equipped to perform major unit operations on food-grains such as wheat, rice, legumes, millets, oilseeds, etc. There are laboratory scale facilities for cleaning and grading of food-grains, different types of drying, dehusking and polishing of rice, decortication of groundnut, milling and flaking of millets, dal mills, oil expellers (mustard, peanut, soybean etc.), grinders and miscellaneous primary processing equipments for various agricultural commodities.

**Microbiology Laboratory**

The laboratory has facility for micro-biological and bio-chemical analysis of cereals, pulses, oilseeds, millets, fruits, vegetables, medicinal plants, and food products. Nutritional quality, quantity and its health benefits of food products are assessed and estimated in this laboratory. It has state-of-the-art equipments required for analytical procedures, culturing, and conduct of food safety related various experiments.

**Engineering Properties Laboratory**

Physical properties of food such as colour, texture, rheology, and interfacial properties are important attributes because of their relationship with the product quality as well as their effect on the processing behaviour of foods. Measurements of these attributes are essential to develop a newfood product and their industrial approaches. This laboratory comprises equipments, gadgets, set-ups and gauges to measure and analyze the various engineering properties of agricultural commodities.

**Machine Vision Laboratory**

Machine vision is an upcoming field useful in a variety of applications in agricultural research. This laboratory has facilities for conducting research in the area of computer vision based applications useful for food quality determination, food safety, plant phenotyping, etc. The laboratory has imaging set ups for normal RGB imaging, microscope equipped with digital imaging capabilities, hyperspectral cameras of different range of wavelengths (400 to 1000 nm and 900 to 1700 nm).

**Agro Processing Centre (APC)**

The processing activities related to grain processing and spice processing are carried out under one roof at APC. It is model set-up which can be emulated at village level for primary and secondary processing of farmers produces. It has graders, cleaners, flour mill, flour sifter, dal mill, pulverisers, packaging machines, storage silos, etc. Hands-on training is provided to the interested stakeholders for a live experience of running a processing centre. There is also a 5 ton/h modern dal mill in the premises which is a turn-key type of a set-up where the entire dal milling operation is carried out by the press of a button. This modern dal mill is open to use by farmers and entrepreneurs who wish to get their produce processed through the agribusiness incubation unit of the Institute.