

TENDER REF. NO: NABI/2(036)/18-19/N-PUR

MODIFIED TECHNICAL SPECIFICATIONS AFTER THE PRE-BID MEETING

HELD ON 24TH MAY 2018

Specifications for NIR Instrument

1. The instrument should be capable of performing multi-component analysis in samples, measuring parameters such as moisture, protein, ash, yellowness, gluten, starch, fiber, sedimentation value, test weight, fat/oil, etc.
2. It should test samples presented as whole grains and powder.
3. The analysis time should not be more than one minute.
4. Calibrations must be provided for wheat grains and flour samples for parameters mentioned in point 1, and additional if possible and for multitude of commodities.
5. The measurement may be using reflectance or transmittance or trans-reflectance modes.
6. The light source should have warranty for at least 5 years or minimum life of 1500 hours whichever is earlier. One additional lamp should be provided.
7. Detectors: Silicon and/or InGas and/or PbS.
8. The instrument should have touch screen interface.
9. Spectrometer should be able to do its self-analysis test and provide recommendations if any action needs to be taken.
10. For remote support Internet connectivity should be possible.
11. The software should be compatible with windows. It should have an internal system for conversion of NIR data to real digital data. Software should help in the data collection and manipulation of NIR spectra, full control of the instrument parameters including display of the real-time spectral signal. The software should be capable of developing models from the collected data. Any other optional software that can assist in NIR analysis should be quoted.
12. Software for calibration model development should be provided along with the suitable PC.
13. The installation will be considered successful only after the completion of users' training and establishment of calibrations.

14. Company should do biochemical/ /mechanical (whichever is applicable) analysis of parameters mentioned in point 1 (around 10) for our 60 samples including soft, hard and colored wheat and then extend existing calibrations available with company with new ones to increase the accuracy of testing.
- 15. After opening the technical bid, qualified companies will be asked for sample analysis before opening the financial bid.**
16. The validation of the instrument is required to be done at six-month intervals from the date of installation.
17. The list of installations in at least 7 different government and non-government institutions in India should be provided. The feedback reports from the previous users should be provided with the technical bid.
18. Warranty for at least two years, additional warranty and AMC prices should be quoted separately.
19. The instrument should comply with international standards of quality certification.
20. All the necessary accessories and attachments for measurement should be offered with the system.