An attempt has been made in this work to present a comprehensive knowledge of the subject theory and practical applications in a systematic and scientific manner. Ultrasonics has been used in different animal’s milk testing as to determine grain. The present work is an effort at shifting the earlier literature to watch what questions remained unrealized and what gaps are to be fulfilled in the work done by previous investigators who have contributed to the understanding of ultrasonics. The present work is spread over seven chapters.

A general discussion about scope of ultrasonics is given in Chapter IA. The field of the applications of ultrasonics is extremely wide. The importance of ultrasonics lies in fact that it is a very useful tool in hands of physicists. Besides purely theoretical considerations, technical applications of ultrasonics are large and varied. The research and development in field of ultrasonics is maintaining a steady growth. We had presented all facts in detail in this chapter.

In Chapter IB, Ultrasonic is science of sound wave having frequencies beyond the range of human hearing, i.e. above 20 kilo-hertz. The term silent sound also has been used in the literature to denote ultrasonic waves. Ultrasound is a simple mechanical wave at a frequency above the threshold of human hearing. It can be generated at a broad range of frequencies (20 kHz - 10 MHz) and acoustic intensities.

A qualitative discussion of ultrasonic propagation parameters, experimental techniques and available measuring techniques at Physics Department, Brahmanand PG College, Rath are discussed in Chapter IC. Measurements of ultrasonic velocities for different animal’s milk (Cow Buffalo and Goat in Bundelkhand Region) are made by ultrasonic interferometer F-81 measurement of velocity.
In Chapter I, Milch animals found in Bundelkhand region are discussed in detail.

In Chapter II, Velocity Measurement in Pure Milk, Velocity Measurement in Milk of different animals in Bundelkhand region are evaluated at room temperature and different temperature, the review of literature on ultrasonic studies reveals that ultrasonic velocity measurement is used to understand the nature of milk velocity. It is clear from Table and figures the ultrasonic velocity decreases as temperature increases and velocity decreases present the room temperatures. For this purpose we have take the pure milk of different animal. The present day need is for development of simple reproducible, sensitive, cost effective and fast methods for analysis of milk and milk products so that generated information can be effectively utilized for human health.

In Chapter III, Velocity Measurement in Pure Water, earlier we have introduced the significance of water quality. A review of literature on ultrasonic studies reveals that ultrasonic velocity measurement is used to understand the nature of water velocity. Since Pure water is essential for nutrition quality so our aimed to find out ultrasonic velocity in pure water with temperature variation and frequency variation.

In Chapter IV, Velocity Measurement in Milk Impure, A review of literature on ultrasonic studies reveals that ultrasonic velocity measurement is used to understand the nature of milk velocity. Since Cow, Buffalo Goat milk is essential for nutrition quality so our aimed to find out ultrasonic velocity in pure milk and impure milk at a 5%, 10% and 15% with temperature variation and frequency variation. For this purpose; we have taken the pure milk and impure milk of different animal.

In Chapter V, Chemical Study of Milk, chemical study of cow, buffalo and goat milk. The study of milk in vitamins, proteins, carbohydrates etc.

In Chapter VI, Velocity Measurement in Periodic Interval, earlier we have
Introduced the significance of milk quality. A review of literature on ultrasonic studies reveals that ultrasonic velocity measurement is used to understand the nature of milk velocity. Since Cow, Buffalo and Goat milk is essential for nutrition quality so our aimed to find out ultrasonic velocity in pure milk at a particular time interval with temperature variation and frequency variation. For this purpose we have take the pure milk of different animal. It is clear from Table and figures the ultrasonic velocity decreases as temperature increases and velocity increases at a particular time interval.