

# *Cotton sector has opportunities in wake of COVID-19*



**Dr. Seshadri Ramkumar**

The COVID-19 situation has revealed that cotton can find emerging applications to save lives.

The global economy is at a standstill, weakening consumer confidence and spending. COVID-19 has exposed the vulnerabilities of nations and the manufacturing sector in terms of personnel protection equipment (PPE) availability. Looks like the slow economic activity may linger for months. Until a vaccine is developed, there could be a resurgence in fall, which may have serious impact on the economy and our society. This necessitates the critical need for planning regarding medical and non-medical countermeasures. PPE manufacturers must have long-term vision in terms of having buffer capabilities and strengthening their R & D efficiencies. It is important to look for new materials, design aspects to develop highly efficient masks, medical gowns, decontamination technologies, etc.

Cotton industry has a role to play in developing protective materials because of certain unique capabilities. Research carried out by researchers at the United States Department of

Agriculture in the late 1960s showed cotton can contain virus spread. Although not carried out on corona strain, vaccinia virus study showed that they only persist for shorter time on cotton compared to another material studied. The virus did not persist on cotton cloth beyond 72 hours.

Finding new applications beyond the commodity fiber to fashion supply chain is important for the High Plains' cotton sector. As a majority of U.S. cotton is exported, with China being an important export market, the slowing down of Chinese economy and the impact of COVID-19 on Chinese products, the need to look for new markets and opportunities is imminent. It will be beneficial for the industry to look beyond yield and quality attributes. Strategies for penetration into medical and industrial applications for cotton must be worked out.

"Cotton is an industrial product, and as such, we have to always be looking for any new or additional uses that can provide opportunities for our cotton producer," said Steve Verett, chief executive officer of Lubbock-based Plains Cotton Growers, Inc.

United States' cotton industry has been supporting new applications research at Texas Tech University that has resulted in products such as oil absorbent. Recently, the entrepreneurial spirit of High Plains' small business is evident in the development of cotton filter-based

face masks. Lubbock-based E Innovate, LLC, a year-old startup, has been collaborating with this scribe and Scarborough Specialties, Inc. to develop enhanced face covers with cotton filter substrates.

The U.S. cotton sector has always stepped up to challenges such as sustainable agriculture, enhancing yield with reduced inputs, to name a few. Next phase of the cotton industry should focus on developing cost-effective solutions for saving lives and environmental protection. "Cotton industry's long-term willingness to adapt to the changing needs of our customer and to seek innovation in both production and processing will be a source of strength going forward. Production cost efficiency, resilience and sustainability will be key elements along with new utilization innovations that expand cotton's market for both fiber and seed," said Kater Hake, vice president of agricultural and environmental research at Cary-based Cotton Incorporated. Investments in research on new cotton textile manufacturing, environmentally friendly processing, industrial and medical applications will prove worthy.

COVID-19 has clearly highlighted the potential of cotton in emerging areas such as medical textiles.

*Dr. Seshadri Ramkumar is a professor in the department of environmental toxicology at Texas Tech University.*