

# NECESSARY STEP Retinopathy of Prematurity: The silent, Blinding Epidemic

Drug abuse and trafficking have long plagued societies across the world, undermining public health, security, and social stability. Recognizing the urgent need to curb this menace, governments have introduced stringent legislation, often referred to as a "tough act against drug crimes." While some critics argue that harsh laws may punish the vulnerable, the growing drug problem demands decisive and uncompromising measures. This editorial examines why such legislation is both timely and necessary. First and foremost, the social consequences of drug abuse are devastating. Drugs do not merely affect the user; they ripple through families, communities, and even the economy. Addiction leads to loss of productivity, increase in healthcare costs, and the breakdown of family structures. Youth, the backbone of any nation, are particularly vulnerable to the lure of narcotics. A stringent legal framework ensures that those who manufacture, distribute, or promote drugs face severe consequences, thereby discouraging criminal networks and reducing the availability of harmful substances in society. Moreover, drug-related crimes often fuel broader criminal activities. Traffickers and smugglers frequently engage in violence, corruption, and organized crime. Without a strong legal deterrent, these networks can operate with impunity, destabilizing communities and threatening national security. A tough act against drug crimes sends a clear message: crime does not pay. By imposing strict penalties on offenders, the law can dismantle networks that thrive on exploitation and fear, offering citizens a safer environment. Critics of stringent drug laws often raise concerns about human rights and the potential for overreach. They argue that strict punishment might disproportionately affect marginalized populations or fail to address the root causes of addiction. While these concerns are valid, they do not justify inaction. Effective drug policies can balance enforcement with rehabilitation. For instance, alongside strict punishment for traffickers and repeat offenders, governments can invest in addiction treatment programs, awareness campaigns, and community support initiatives. A comprehensive approach ensures that the law targets crime without neglecting compassion and rehabilitation.

**DR NITIN KUMAR**  
 Prematurity is a state in which a child is born before the period of normal gestation (37 weeks). Prematurity can lead to a plethora of medical and surgical problems. These newborns are vulnerable and are at risk of developing complications like infections, respiratory problems, feeding problems and neurological problems. Some of these children may also require long stays in Neonatal intensive care units. About four decades back the disease was less common as very-low birth babies were not surviving due to limited neonatal care. However, secondary to significant improvement in the neonatal care, even very low weight babies are surviving, nowadays. The neonatal care has improved significantly but still there is lack of parity of care when comparing various setups (rural, urban, district hospitals) at the national level. While the children are being treated and cared for in these specialized units for systemic problems, they are at risk of a silent disease occurring in the eyes, Retinopathy of prematurity (ROP). The disease is one of the leading causes of childhood blindness. In fact, a report from year 2023, in the global medical journal, Lancet, states that India amounts to 10% of the cases of blindness due to this dreaded disease. ROP is a disease in which the retina (back part of the eye) of the newborns is immature, and vascularity of the retina is not complete, as it would have been in a child born at term. The immature blood vessels cannot provide adequate nutrition to the retina. Also, these abnormal ves-

sels can cause hemorrhages in the retina and later lead to the detachment of the retina leading to the loss of vision in the newborn. The risk of the disease is there when new borns are less than two kilograms of weight and the period of gestation is less than 34 weeks. However, babies with weight more than two kilograms may be also at risk if they have significant problems like respiratory distress, infections, low hemoglobin, multiple blood transfusions and unregulated exposure to oxygen. While the problems like breathing difficulties, neurological problems, feeding problems may be easily recognized by the parents and the clinicians, the disease of ROP may totally go undetected. The eyes may seem to be perfectly normal, externally, in the initial stages of the disease and the parents may be totally unaware. It is only during the later stages of the disease that a white reflex may be seen because of retinal detachment and the child would invariably have lost sight by this time. These situations are heartbreaking for the parents and treating physicians as surgical interventions may be required for these advanced stages with very poor visual outcomes. So, how can we stop this blinding disease which is slated to be the leading cause of needless childhood blindness by 2030. The simplest of the strategies is to screen all the newborns who are at the risk of the disease. The next question which comes to mind is What is this ROP screening? Screening is an examination of the eye in which a ROP specialist, retina specialist, or an ophthalmolo-

gist will see the back portion of the eye that is retina and look for the health and vascularity of the same. Screening is central to detect the disease at the earliest. The earliest of the stages can resolve on its own while later stages may require treatment as to prevent loss of vision in these newborns. "The child cannot communicate inability to see, parents are unaware as eyes seems normal, so it is imperative for neonatologists and ophthalmologists to pick up the disease early. This can be done by looking for the disease by adopting screening. Another modality is tele screening in which a trained healthcare worker can take photographs of the retina and send to qualified readers to look for the disease. Who should be screened? The guidelines are to screen newborns who are less than 2 kg of weight, are born before 34 weeks and those who have significant systemic problems. When should the screening be done? First screening should take place within the first month of the birth of the child. Although the first screening can be done as early as two to three weeks after birth, as per discretion of the treating neonatologist and ophthalmologist, depending on the birth weight and gestation. How often the child must be examined? The early stages of the disease may resolve spontaneously and may not need any treatment. However, the severe forms of the disease may require extensive treatment. So, the eye specialist examine

the child frequently. It is imperative for the parents not to miss out the follow-ups advised as the disease may progress within weeks to advanced stages. Can this disease be prevented? The first step to stop ROP will be to raise awareness about the disease. In most of these cases the parents do not know that their child had to be screened. The parents must be aware and ask for screening. The pediatricians and neonatologists must be vigilant that not a single newborn who needs screening is missed. Adequate and high-quality neonatal care is provided, so that the chances of occurrence of the disease can be decreased. What are the treatment options? Although ROP is a blinding disease, if it is picked at the early stages, treatment options like laser therapy to retina and intravitreal injections are available. The advanced stages in which retinal detachment occurs can be managed by Vitreo-retinal surgeries. Social Impact of the disease: The masses should know that there is a disease which can rob the newborns of their vision. It is again important to emphasize that these children have a lifetime to see and are the future of our country. To conclude, it should be a collective responsibility of the society and the healthcare professionals to ensure that not a single newborn goes blind as he/she was not screened or treated for this blinding disease. (The author is Associate Professor, Department of Ophthalmology, AIIMS Jammu)

# VANDE MATRAM, THE SOUL SONG OF INDIA

**PURAN CHAND SHARMA**  
**BACKGROUND AND ORIGIN:** Vande Matram means 'I bow to the Mother'. It is not just a song; it is a national Mantra of patriotism that inspired generations during the struggle for freedom, written originally in Sanskritized Bengali in the 1870s, the hymn personifies India as the Divine Mother-pure, nurturing, and powerful. It was first composed by Bankim Chandra Chatterjee, one of Bengal's foremost literary figures and a towering nationalist thinker. At that critical juncture, India was under British colonial rule and nationalist sentiment was rising quietly among intellectuals. Bankim Chandra's literary creation gave expression to this passion for liberation. **BANKIM CHANDRA CHATTERJEE**, the author was born on 27 June 1838 in a small village of Kanthalpara, Bengal, studied in Hoogli College and Presidency College, he became one of the first graduates of University of Calcutta in 1858 and later rose to the position of Deputy Magistrate under the British Administration. Although a Government officer, yet he was fully devoted to the cultural and spiritual resurgence of India. By virtue of his novels like Anandmath, Devi

Chaudurani etc. he laid the foundation of modern Bengali literature and Indian Nationalist thought. His vision of India as a divine mother (Bharat Mata) became the emotional cry of patriotic movements. **ANANDMATH AND BIRTH OF VANDE MATRAM:** Vande Matram first appeared in Bankim's novel 'Anandmath' which gave a fillip to Sanyasi Rebellion in late 18th century Bengal wherein Vande Matram served as powerful spiritual war cry expressing both devotion and defiance. It tells the story of sanyasis (MONK SOLDIERS) who dedicated their lives for liberation of Motherland from oppression. He first wrote Vande Matram as a song of spiritual patriotism, celebrating India as Divine Mother, A Goddess who nourishes, protects and inspires her children. ANANDMATH (The Abbey of Bliss) is a landmark nationalist novel that depicts:- A band of Hindu monks rising in rebellion against the British tyranny. The vision of India as Bharat Mata, a land of divinity under subjugation. The symbolic call for self-sacrifice and unity in service of the motherland. The Song Vande Matram becomes a rallying cry for liberation in this novel. It weaves

together Bhakti, Shakti, and Deshbhakti which empowered the movement for holistic freedom of our country on a brisk note. The Vande Matram song was later musically composed by Ravindranath Tagore and sung for the first time at the Indian National Congress Session in 1896. Revolutionaries and freedom fighters such as Aurobindo Ghosh, Lala Lajpat Rai, Subhas Chandra Bose, and others used it as a symbol of resistance and unity. During the course of protests like Partition of Bengal (1905), it became the war cry of Swadeshi movement, uniting millions in the name of Mother India. Its profound emotional and spiritual energy made it a national emblem of awakening. **RECOGNITION AS THE NATIONAL SONG** After independence in 1947, Vande Matram was given the status of National Song (not the national Anthem) on account of its historic and patriotic value. The Constituent Assembly (1948) decided that first two stanzas which are inclusive and universal would form the official National song of India. **COMPARATIVE UNDERSTANDING AND SIGNIFICANCE OF VANDE MATRAM AND JANA GAN**

**MANA-** It will be no exaggeration to say that India's journey to Nationhood is closely connected with these two very important compositions: Vande Matram, the National Song of India, and Jana Gana Mana, the National Anthem of India. Both the songs occupy a unique place in our cultural and political history. They reflect the spirit of patriotism, unity, sacrifice and devotion to the motherland. While Vande Matram inspired generations during the freedom struggle, Jana Gana Mana became the solemn expression of a united, independent nation. Together, they form the musical and emotional backbone of India's national identity. Vande Matram, the soul song describes the land as clothed with greenery, cooled by gentle winds, and blessed with rivers and harvests. Its poetic imagery creates a sense of devotion towards the motherland. During the movement, Vande Matram became a rallying cry for courage, sacrifice and also turned into emotional fuel of the Swadeshi movement. The British feared its power so much that they restricted its public singing. The song thus became a symbol of resistance and national awakening. On the other hand, Jana Gana Mana was composed by the great poet

Rabindranath Tagore in 1911. It praises the unity of India and the destiny that guides the nation forward. The anthem brings together the diverse regions of India, from Punjab and Sind to Gujrat, Bengal, and the South. Its tone is solemn, disciplined and dignified, making it suitable for official occasions and national ceremonies. While Vande Matram stirred revolutionary emotion, Jana Gana Mana represented calm unity and harmony. It reminded people that India's strength lies in its diversity and collective will. When India became independent, the constituent Assembly had the responsibility of choosing national symbols that would represent the new nation. On 24 January 1950, it was decided that Jana Gana Mana would be the National Anthem, while Vande Matram would be accorded equal honor as the National Song. This decision recognized the historic role of Vande Matram in the freedom struggle and the unifying quality of Jana Gana Mana in independent India. **IMPACT ON INDIAN SOCIETY AND CULTURE** For freedom fighters, Vande Matram was strength, resolve and reminder of the sacred responsibility to liberate the Nation. It shaped concepts

of duty, sacrifice and unity. Even after Independence, Vande Matram continues to evoke: National Pride, Cultural Identity and Unity amidst diversity. When Vande Matram is recited on diverse occasions, it reminds all citizens of the country of their shared heritage. **CONCLUSION** Vande Matram is one of the most influential creations in India's modern history. With its origin in literature, its cultural symbolism and its profound role in the freedom movement, the song continues to shape Indian identity. While Jana Gana Mana serves as the National anthem, Vande Matram remains the soul song of India, a timeless expression of devotion, courage, unity and love for the motherland. Its legacy not just lies in history books but in the collective consciousness of the Indian people, inspiring generations to cherish and uphold the values of freedom and national unity. It is a matter of great pleasure to note that students, educational and cultural institutions along with common masses are joining the celebrations of 150 years of iconic VANDE MATRAM. (The author is president of Ved Mandir)

# Fruit Production in Jammu Region: Blossoming Opportunities Amidst Challenges

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 The Jammu region, known for its diverse landscapes stretching from the subtropical plains to temperate highlands, is fast emerging as a vibrant hub for fruit cultivation. With elevations ranging from 300 to over 4,000 meters, the region's varied agro-climatic zones offer a unique advantage - the ability to grow a wide array of fruits, from mangoes and kinnows in the lowlands to apples and walnuts in the higher reaches. Yet, despite this natural gift, Jammu's fruit sector has long grappled with the challenges of rainfed farming, poor infrastructure, and limited market access. The recent policy interventions and farmer enthusiasm for high-density orchards, however, have sparked a quiet horticultural transformation. **A DIVERSE ORCHARD LANDSCAPE** The Jammu division forms the sub-tropical counterpart to Kashmir's famed apple belt. The districts like Jammu, Samba, Kathua, Udhampur, Reasi, and Rajouri are predominantly suited for mango, citrus (kinnow and mandarin), guava, litchi, ber, and aonla. In the mid-altitude zones often referred to as the "intermediate belt" farmers cultivate kiwi, olive, anardana, peaches, plums, apricots and pears, while higher elevations in Doda, Poonch, and Reasi support limited but promising temperate fruit plantations such as apple and walnut. According to the Jammu and Kashmir Department of Horticulture, the Union Territory's total horticultural area has risen from about 3.35 lakh hectares in 2020-21 to around 3.45 lakh hectares in 2023-24, with fruit production increasing from 22.3 lakh metric tonnes to over 26 lakh metric tonnes. The sub-tropical fruit economy of the Jammu region is largely driven by the cultivation of fruits such as mango, citrus (sweet orange, mandarin/kinnow, lime, lemon), guava, litchi, ber, aonla, grapes, and strawberry. As apples continue to dominate the UT's overall statistics, the sub-tropical fruit economy of Jammu has been steadily gaining ground. **CURRENT CHALLENGES IN FRUIT PRODUCTION** **Rainfed Dominance** Nearly 80 per cent of the horticultural area in Jammu is still rainfed. The dependence on erratic rainfall leads to inconsistent yields and poor fruit quality. The government has started investing in community water tanks and shallow tube wells, but irrigation remains the biggest limiting factor. "Our orchards perform below potential primarily because of water stress. A single dry spell during fruit set or maturity can undo months of hard work. Expanding micro-irrigation is not optional-it's the foundation for productivity." **Climate Variability** The region faces increasing climatic uncertainty. Hot winds in the plains, erratic monsoons, and frost in the hills complicate varietal selection and canopy management. The experts emphasize the need for heat-tolerant and location-specific cultivars, alongside better orchard management practices like canopy pruning and mulching. **Limited Post-Harvest Infrastructure** Fruit losses between harvest and market remain high, especially for perishable crops like litchi, guava, strawberry and mango. The absence of pre-cooling units, grading lines, and



cold storage facilities forces farmers to sell produce quickly, often at low prices. The development of reliable cold chain network could drastically change farmer incomes. **GOVERNMENT INITIATIVES AND FARMER ENTHUSIASM** To address these issues, the horticulture sector of Jammu region has witnessed a policy push through schemes like the Modified High-Density Plantation (HDP) Programme, implemented by the Department of Horticulture. The HDP was initially focused on apple, almond, and walnut cultivation in the temperate zones, it now includes sub-tropical fruits such as mango dragon, citrus and litchi. The response has been overwhelming. In 2024-25, against a target of about 1,300 hectares, applications received for over 7,000 hectares, reflecting strong confidence of orchardists in the new model. Under HDP, trees are planted at closer spacing with improved rootstocks, leading to early bearing, uniform canopies, and higher productivity. "Farmers are showing unprecedented enthusiasm for high-density fruit plantations. These modern orchards can increase productivity by three to four times compared to traditional systems and ensure consistent income." **OPPORTUNITIES FOR GROWTH IN FRUIT PRODUCTION** **Expanding High-Density Orchards** In the short term, expanding high-density plantations in mango, kinnow, guava, and litchi offers the biggest opportunity. With proper training in pruning, fertigation, and pest management, orchardists can expect significantly higher yields and better fruit quality.

**Water-Smart Farming** The high proportion of rainfed area, micro-irrigation and fertigation systems must become the norm. Integrating water harvesting structures, such as community tanks and bore wells, will not only stabilize production but also build resilience against droughts. **Variety Renewal and Orchard Rejuvenation** The rejuvenation of old and unproductive orchards with new, high-yielding cultivars suited to local climates is a medium-term priority. The Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST-J) has already developed region-specific recommendations for sub-tropical fruits like mango, guava, aonla after the success of rejuvenation work of old and senile mango plants (400 no.) in Raj Bhawan Jammu assigned to Department of Horticulture, Jammu which was conducted under the technical guidance by SKUAST-J scientists of Division of Fruit Science resulted in bearing of quality fruits. **Post-Harvest and Market Infrastructure** The development of pack-houses, cold rooms, and ripening chambers at block or cluster levels can minimize post-harvest losses. Linking these facilities to the e-NAM platform and APMC markets will ensure farmers get better price realization. There is also immense potential for exports to the Gulf countries, especially for kinnow, guava, and litchi. **Processing and Value Addition** The processing units for fruit pulp, juice, and dried products can transform Jammu's fruit economy. Mango pulp, kinnow juice, guava nectar, and dehydrated aonla products have growing domestic and export markets. The encouragement of

MSMEs under schemes like MIDH and RKVY can boost employment and stabilize prices during surplus years. **Diversification and Risk Management** Intercropping with short-duration crops such as legumes and spices in young orchards can provide supplemental income and improve soil fertility. The staggered planting of early and late fruiting varieties can spread risk and ensure steady supply across seasons. **A Data-Driven Future** SKUAST-Jammu has started exploring digital tools under sensor based agriculture project of HADP where artificial intelligence and machine learning tools shall be demonstrated to the farmers for better planning and monitoring. The remote sensing for pest surveillance, mobile-based advisories for farmers, and online dashboards for tracking scheme progress are among the proposed innovations. These data-driven systems can make extension services more precise and responsive. "We used to depend on guesswork and local experience. Now, with digital advisories, we know exactly when to prune, irrigate, or spray. It has made farming more scientific and less stressful." **FUTURE STRATEGIES** To sustain momentum, some points suggested for fruit production in the next decade are as follows: **Irrigation First:** Cover the largest rainfed clusters with community tanks and drip systems, linking subsidies to water-use efficiency. **Accelerate HDP Implementation:** Ensure timely supply of certified saplings, crop insurance, and farmer training for over 7,000 hectares under the high-density planting model. **Build Pack-House Networks:** Establish small, decentralized pack-houses for grading and cold storage across districts. **Promote Quality Nurseries:** Encourage private participation in high-density nursery development to ensure true-to-type planting material. **Upskill Farmers:** Organize seasonal field schools and digital training on pruning, fertigation, and pest control based on SKUAST-J's package of practices. **OUTLOOK: FROM POTENTIAL TO PROSPERITY** With strategic investments in irrigation, modern orchard systems, and post-harvest infrastructure, Jammu's fruit sector is poised for a leap forward. The region's proximity to major markets, coupled with a supportive policy framework, makes it a natural candidate for becoming the sub-tropical fruit capital of North India. The next five years must focus on "Irrigation + High-Density + Market Infrastructure", while the subsequent five can build on processing and export readiness. Together, these steps can transform Jammu's fruit economy - turning its diverse orchards into factories of rural prosperity and complementing the temperate fruit belt of Kashmir. "If we get irrigation and storage right, Jammu can be as famous for its litchi, kinnow and mangoes as Kashmir is for its apples." (The writer is Head, Division of Fruit Science, SKUAST-Jammu)