Chapter 1: List of rice varieties - Wikipedia

attention in India despite the fact that scented rice varieties have competitive international price and the country can earn foreign exchange from them. Chhattisgarh has traditionally been known as the bowl of scented rice in.

Productive mutants in scented rices in Uttar Pradesh. Role of Induced Mutations in Crop Improvement. Increasing the mutagenic efficiency of EMS in rice. Consequences of WTO and Geographic Indicators on economics, production, trend and marketing of speciality rices. India the Great Cradle of Rice. Rice Landscapes of Life. Scansetti; Edzioni Mercurio, Torino, Italy; â€", pp. Prospects of promoting traditional scented rice varieties of eastern U. Conserving crop biodiversity and promoting organic production of traditional rice in eastern U. Note on isozyme pattern of monogenic recessive vegetative mutant in rice. Speciality Rices of the World: Rice in its original home: Collection of unique rice germplasm from the cradle of rice Oryza sativa L. Genetic Resources of Rice in India: Past and Present; Ed. Scented rice variety Kalanamak and its cultivation for better quality and high yield. Scented rice variety of new Kalanamak and its cultivation package Hindi; Kheti; Vol. Aromatic rices collected from 7 districts of Eastern U. Catalogue of Aromatic rices of Eastern Uttar Pradesh. Council of Agricultural Research, Lucknow, pp Short-grained aromatic rice Kalanamak: Diversity in rice, its cultivation and its uses in the area of its origin: Eastern Uttar Pradesh, India. Geographical Researches on Rice: Organic Farming of Kalanamak rice in Hindi. Kheti, Vol 66 1; April; 3 â€" 6. Models of market and marketing linkage for Kalanamak rice. Chlorophyll mutation in M2 as an indicator for recovering useful mutants in rice. Breeding for quality rice through induced mutation. Pantnagar, April 12 - 14,

Chapter 2: Economics and Marketing of Aromatic Rice - A Case Study of Chhattisgarh - CORE

A treatise on the scented rices of India by Uma S Singh (Book) 1 edition published in.

In the vast annals of ancient historical treatises, there are few guides to living the life of a king as informative as that of the Manasollasa. Written by King Someswara III AD of the Chalukya dynasty, this 12th-century encyclopedia has guides on everything from capturing elephants to ruling a kingdom and brewing wine. In many ways, he was the original king of good times. He designated the Manasollasa as the book that teaches the world. It comprises of five sub-books divided into chapters. The advice may not apply to all of us, particularly those of us who lack an army of servants and helpers. One column advises a king to maintain four palaces, one for each of the seasons spring, summer, winter and monsoon. An ointment prepared with fragrant unguents like Kostha etc. A Khail a special preparation of an ointment of wheat-flour etc†is then applied to remove grease from the skin and it serves the same purpose as the modern soap. Young women then pour over the head water from golden jars made fragrant by various scented things. The scented oil of Amalaki is then applied to the hair; sometimes scented turmeric is applied in addition. The oil and turmeric are then removed with warm water and the body is rubbed vigorously with a dry towel. Finally the removal of wet clothings completes the elaborate process of a royal bath. The inclusion of wrestlers was no whim; the king patronized and encouraged competitive wrestling. Wrestling matches were commissioned between equally competent fighters. The wrestlers would salute the king and then fight in specially constructed arenas. The first to break his opponents limbs would usually be declared the victor. It suggests that kings take their astrologers seriously, and plan their palace according to the principles of Vasthu. And kings should have food and medicine tasters to guard against the four poisons. Much of the book has to do with the art of enjoyment. Six varieties of dancing are described next and then six types of nartakas [performers] Along with dance, the Manasollasa has 2, verses in two chapters devoted to the study of music. Crunchy snacks like Sev and delicacies like the idli were first mentioned in the Manasollasa though the latter is believed to have originated in Indonesia. The King described the dishes cooked for him in the palace, listing vegetarian and non-vegetarian recipes. But many pages describe recipes, some of which are followed to this day â€" and others that can doubtless inspire some experimentation in the kitchen! Take rice, for example. In those days, it used to be mixed with milk and ghee after cooking â€" with the excess water discarded. Another recipe describes a milk-based snack: In another method, good milk is added to sour juice and the split milk is tied with a white cloth; when the water is strained, Elaichi cardamom and sugar are added to the condensed mass, mashed and blended into a smooth lump. Small balls in the size of ripening Bimba fruits are made out of it, fried and eaten. Many of these recipes are available online. Do give them a try â€" and let us know how they turned out. Not all the recipes are equally mouth-watering, such as this recipe for roasted rat the reaction to which depends on personal taste. Select a strong black rat, found in the fields and river banks. Fry it in hot oil holding it by the tail till the hair is removed. After washing with hot water, cut open the stomach and cook the inner parts with sour mango and salt. Alternatively, skewer the rat and roast it over red-hot coals. When the rat is well cooked, sprinkle it with salt, cumin and lentil flour. Do note that the black rats from fields and river banks are likely to be a much cleaner species than those to be found in your city blocks. Asides from these, different methods of brewing wines of grape, sugarcane and palm and coconut sap are mentioned. Marco Polo himself had tried this palm wine and given it his thumbs up. The Manasollasa also has extensive chapters on the training and breeding of horses and elephants. Some of these techniques, such as those to capture elephants, were later lost in the region after the invasions of the Muslim sultanates. Hyder Ali made a famous attempt to capture a herd of elephants and failed so spectacularly that he cursed anyone who dared attempt the feat again. The king mentions that among the finer animals were elephants from the Kalinga forest and Arabian horses. Perhaps one piece of good advice the treatise offers was the following: Altogether, the Manasollasa covers the aspects and qualifications needed of a king, the techniques of administration that he could find useful, the recipes of the royal court, the arts of song and dance and the many types of games and sports that were once prominent. If you read it with an eye to imitation, you will find it a guide to living well.

The Manasollasa is quite unlike the traditionally acknowledged treaty of ancient Indian governance $\hat{a} \in$ " the Arthashastra $\hat{a} \in$ " in that this book teaches you how to leave your hair down and enjoy life. You can read its translation here and see whether the 12th-century king of good times is still relevant today. If one thing is certain, it is that one can never have enough recipes, songs, dances and games to try out $\hat{a} \in$ " as long as we keep an open mind to learn the lessons from the past. You may share using our article tools. Please send in your feed back and comments to editor madrascourier.

Chapter 3: Cumin Scented Rice - Artful Dishes

"Rice--India" @en.. "Rice" @en.. "ii". "". "" "1st ed.". "Scented rices of India" "Contributed articles." @en "en".

Her children loved it. They are my weakness â€" butter, yogurt, sour cream, ice cream oh,yeah! Not yet having eaten a lot of Indian food at that time, I imagined chunks of chicken in a creamy, buttery sauce I think I was imagining a kind of Alfredo sauce. Well, when I finally did get to taste it, I was wowed. Yes, it was creamy and kind of buttery, but the spices and the tomato made it totally unexpected. It was so much more complex in flavour than just butter and cream would suggest. It is more mildly spiced than a lot of Indian food, but still has a warm, tingly mouth-feel. My family loves it, and it is not difficult to prepare at home. The craving was strong. You can make this dish with chicken breasts or thighs or a combination of the two. You can make it with just cream or with the cream and yogurt both. It should work well, too. The only important thing is to make sure you have lots of sauce to smother the rice. I like to serve it with scented basmati rice and naan bread, and a side dish of spinach sauteed with some garlic and onions and lentils. Comfort food of a new and different kind. Heat 2 tablespoons 30ml of the butter in a large heavy-bottomed saucepan or dutch oven over medium heat. Lightly brown the chicken pieces and remove them to another bowl. Add the remaining 1 tablespoon 15ml butter, plus a splash of water to loosen the browned bits at the bottom to the saucepan and saute the onion and ginger until soft. Add the garlic, spices and salt, and cook for another minute or two, until they smell wonderfully aromatic. Return the chicken, plus all the buttery juices, to the saucepan. Stir in the tomato sauce and bring slowly to a boil. Reduce the heat, and simmer, stirring frequently, for 10 minutes. Add whipping cream and yogurt if using, and simmer for 10 to 15 more minutes, stirring frequently, until chicken is cooked through and sauce thickened to your liking. Garnish with the chopped cilantro. Serves 6 or 4, plus lovely leftovers to take and heat up for your lunch and drive your coworkers crazy the next day I like to serve it with: Scented Basmati Rice I make this by combining in a saucepan: Remove the cardamom pods and cinnamon stick. Fluff with a fork.

Chapter 4: Asian Agri History Foundation, AAHF Organization

Hybrid Breeding in Aromatic Rice Chapter (PDF Available) Â. January with 12 Reads In book: A Treatise on The Scented Rices of India, Publisher: Kalyani Publishers, New Delhi, Editors: R K.

Reproduced from Asian Agri-History Vol. This variety is in cultivation since the Buddhist period BC. It was quite popular in Himalayan Tarai of eastern Uttar Pradesh, India; however, acreage under this variety declined sharply, forcing it to near extinction, due to panicle blast epidemics during and, tall stature causing lodging, long duration, and low yield and grain quality. During this study natural biodiversity in Kalanamak was characterized and utilized to improve this historical variety and save it from being extinct. Ten germplasm lines were resistant to panicle blast. Similarly several germplasm lines performed well in Usar saline-sodic soil of pH 9. These selections offer great promise for cultivation in Usar soil. A traditional method of Kalanamak cultivation Kalam, which is at the verge of extinction, was also evaluated. Kalanamak is one of the finest quality scented rices of India. It is famous for taste, palatability, and aroma. Kalanamak surpasses Basmati rice, considered to be finest quality rice in international trade, in all quality traits except grain length. Cooked rice is fluffy, soft, non-sticky, sweet, and easily digestible with relatively longer shelf-life. In local market it earns higher price than Basmati rice, which is approximately 4 to 5 times higher than non-scented rice varieties Singh et al. Kalanamak belongs to group V Glaszmann, History Kalanamak is in cultivation since the Buddhist period BC. The grains were found from excavation of Aligarhwa district Siddharthanagar, Uttar Pradesh, India, located at Nepal border. Shuddodhan, as the name suggests, means pure rice. Aligarhwa in the foothills of the Himalayas is considered the paddy bowl Singh et al. During excavation carbonized rice grains resembling Kalanamak Fig. Siddhartha took the rice he had taken in alms and gave it to the people, asking them to sow it in a marshy place. Since then Bajha jungle has vanished and its place has been taken by Bajha village near Kapilvastu. Instead of Mathla, now Mudila village exists. The actual belt of Kalanamak is still believed to be the tract between Bajha and Aligarhwa Srivastava, This variety, if sown elsewhere, loses its aroma and quality Singh et al. They built four reservoirs at Bajha, Marthi, Moti, and Majhauli to produce Kalanamak in a large quantity. They not only produced this variety for their own consumption, but transported it to England from Uska-bazar mandi, passing through Dhaka now in Bangladesh via sea route. Due to its increasing demand, the British captured the land around Kapilvastu, and established Birdpur and Alidapur states. They produced Kalanamak through bonded labor and exported to Britain. When the shrewd Gujarati businessmen came to know about its business potential they formed a mandi at Uska-bazar to export Kalanamak. But after independence, Uska-bazar mandi became nonfunctional due to negligence, and reservoirs gathered silt. This led to a fall in production of Kalanamak Srivastava, All these evidences indicate that Kalanamak has been cultivated in Siddharthanagar area from or even before Buddhist period BC. Collection of Germplasm Seventy-six germplasm lines of Kalanamak were collected from native area of cultivation of Kalanamak, i. After discarding duplicates finally 40 germplasm lines were selected. These germplasm lines were evaluated in a multilocational trial during â€"03 for their morpho-physiological, agronomic, and grain characteristics; molecular characterization; reaction to different diseases and pests; and salt and pH tolerance. Morpho-physiological, agronomic, and grain quality characteristics All 40 Kalanamak germplasm lines were husk colored i. It is also attacked by the insect pest yellow stem borer Scirpophaga incertulas Walker. Panicle blast appeared in epidemic proportion during and resulting in sharp decline in area under cultivation of this variety. Susceptibility of Kalanamak germplasm towards different diseases and pests was evaluated at two locations for two consecutive years. Under natural condition different germplasm lines of Kalanamak exhibited wide diversity in their reaction towards panicle blast, sheath rot, stem rot, brown spot, and stem borer. No germplasm exhibited resistance or moderate resistance against sheath blight. All of them were susceptible or moderately susceptible. Thirteen germplasm lines exhibited moderate degree of susceptibility towards panicle blast. Only seven germplasm lines , , , , , and were moderately resistant to stem rot; others were moderately susceptible or susceptible. Thirteen germplasm lines,,,,,,,, and exhibited resistance towards brown spot under natural condition. Yellow stem borer, causing dead heart and white head

symptoms, is the most important insect problem of Kalanamak in field. No germplasm exhibited resistance towards this insect. Some of the germplasm lines showed moderate to high degree of resistance against multiple diseases and pests. Natural incidence of bacterial blight in Kalanamak is rarely observed. However, under artificially inoculated condition, all the germplasm were susceptible to this disease. Performance in Usar soil Soil salinity is a widespread problem. In India alone 6. Though salts are found in small quantity in all the soils, their concentration in Usar soil increases to an extent to become inimical to growth of the vegetation. The suffix namak of the word Kalanamak means salt. However, the purpose of use of this suffix is not very clear as Kalanamak was never recommended for cultivation in Usar soil. Nevertheless Kalanamak was once widely cultivated in Himalayan Tarai of eastern Uttar Pradesh, where Usar soils are widespread. Tolerance of 40 germplasm lines of Kalanamak to different pH 4. Their performance was also evaluated in Usar soil in field at different pH. Coarse rice cultivars, Narendra Usar-2, Pokhali, and Sarju, recommended for cultivation in Usar soil, were used as control. These lines, , , , , , , , and , also performed well in Usar soil in field even at pH 9 to 9. Based on nine morphological features, viz. Kala Joha belonged to a separate cluster. The PCR polymerase chain reaction amplification, performed with RAPD random amplified polymorphic DNA markers to assess the level of polymorphism in 38 germplasm lines of Kalanamak including one germplasm of Kala Joha showed high degree of genomic similarity. It included Kala Joha, a black husk aromatic rice cultivar from Assam indicating the possibility that probably this cultivar originated from Kalanamak. The high genetic similarity observed among Kalanamak germplasm is strong evidence suggesting that the different germplasm of Kalanamak did not evolve independently from each other and therefore, may be considered as part of the same ancestral population. Since Kalanamak is an ancient cultivar, farmers have been using their own seed for cultivation since hundreds of years. There was never any organized seed purification, production, and distribution system for this cultivar. So, whatever variability cropped in either due to mutation or limited outcrossing is retained in the population in the form of small genetic diversity but relatively wider variability in their morphological, agronomic, and grain quality traits and also susceptibility towards diseases and pests. This variability has resulted in decline in both productivity and quality but at the same time it has probably helped in survival of the cultivar in its native area of cultivation. A mixed seed lot behaves as a multiline under natural condition. Probably because of this variability Kalanamak suffers less from different diseases and pests in its native area of cultivation as compared to evolved varieties in the same area Singh et al. Kalam method of cultivation Kalam is a traditional method of establishment of Kalanamak, which is probably as old as Kalanamak itself. In Kalam, transplanting is done twice. First transplanting of to day-old seedlings is done in a bunch of 5 to 6 seedlings. After 25 to 30 days, these seedlings are uprooted, separated from each other, and transplanted again at a normal distance. In the past, this method was widely followed by farmers for the cultivation of Kalanamak. However, with decline in area of Kalanamak, this method has virtually gone out of practice. Kalam method of cultivation was significantly superior over normal transplanting method. There was decrease in plant height average This method was even more economic. Improvement Out of 40 germplasm lines, 11 showed moderate to high degree of resistance against panicle blast under field condition. Six of them , , , , and gave better yields and high quality grain Fig. These selections were distributed to 47 farmers covering 7. Performance of these lines was much better than traditional Kalanamak during both the years. Their average yield varied between 3. In an economic analysis of cultivation of improved selections of Kalanamak involving farmers, the Kalam method of cultivation was more profitable with average net return of Rs ha-1 than the normal method single transplanting of cultivation with net return of Rs Net return from cultivation of traditional Kalanamak by normal method was only Rs The improved selections offer great promise to revive the cultivation of this historical cultivar, which had reached the verge of extinction. Farmers and officials of the native area of Kalanamak, i. Two high grain quality and high-yielding selections, and, have been cultivated in approximately acres These selections were also distributed to few farmers in village Chaker Chaura of district Kapilvastu, Nepal during These farmers distributed seeds to several other farmers in district Kapilvastu during Data on yield and area covered under these selections during in Nepal is being collected. Two Kalanamak germplasm lines, and , with high grain quality, resistance to panicle blast, and reasonably good performance in Usar soil, were selected for evaluation in a large area in Usar soil. Both these

germplasm lines exhibited excellent performance in Usar soil. They yielded equally well or better than coarse grain rice cultivar Narendra Usar-2 released for cultivation in Usar soil. Kalanamak and yielded as high as 3. This is exceptionally good performance considering the high market value of Kalanamak. Market rate of Kalanamak is approximately 4 to 5 times higher than coarse grain varieties like Pokhali or Narendra Usar

Chapter 5: Kalanamak rice - Wikipedia

Kalanamak rice has been granted the Geographical Indication(GI) Tag which was applied to the Government of India by Kalanamak Scented Paddy Production & Conservation Society. The GI tag is an indication which is definite to a geographical territory.

The promise of aromatic rice Surinder Sud September 23, Though Basmati has dominated the domestic and international market for aromatic rice, it is surely not the unchallenged king of fragrant rice. Many other indigenous varieties of scented rice excel equally as far as aroma and cooking qualities are concerned. But, unfortunately, these have somehow not got the attention of rice scientists and traders, including exporters, to the extent that Basmati has. As a result, most of this valuable wealth has either already vanished or is on a decline. The cultivation of non-Basmati scented rice their number still runs into hundreds is now confined to limited pockets where farmers grow them either for self-consumption or for special occasions. Only a few of these aromatic rice are traded domestically, leave alone the international market. One of the factors that sets Basmati apart from other aromatic rice is its long grains. The other scented rice usually have medium to short grains. But then, the global market for long-grained scented rice is only a creation of promotional efforts and not of any natural preference for grain length. The demand for medium- and short-grain rice is far more than that for long-grain ones. That is where lies the scope for pushing non-Basmati scented rice in the domestic as well as the global market. Some of the outstanding examples of short-to-medium grain length indigenous aromatic rice are Kalanamak popularly called, the "black pearl of eastern Uttar Pradesh", Shakarchini and Hansraj of UP, Dubraj and Chinoor of Chhatisgarh, Kalajoha of north-east, Ambemohar of Maharashtra and Randhunipagal of Orissa and the West Bengal region. Bindli, a small-grained aromatic rice grown under waterlogged conditions in UP is known to possess aroma and cooking qualities much superior to Basmati. It elongates more than per cent on cooking, surpassing the Basmati in this respect. Similarly, Randhunipagal has such strong and intense aroma that people fear that over-exposure to it can render the cook insane pagal in Hindi -- and hence its name. Though some of these scented rice have been grown for centuries, no attempt has yet been made to catalogue them. Singh had earlier made a similar effort in cataloguing the scented rice of some other countries as well. But the diversity of scented rice from India is the largest in the world, the noted rice expert points out. Though even this treatise may not have captured the entire diversity, the document has great significance for it can save these rice from extinction. Otherwise, as indicated in this treatise, these rice might lose their identity and aroma through genetic pollution and admixing in the fields and market yards. Significantly, this treatise contains information on the quality traits of these rice, management practices for their cultivation, the effects of environmental and location-specific factors on the quality of these rice and the scientific work, if any, done on them. Besides, it also contains several useful suggestions for future research and trade policies to gainfully exploit the commercial potential of Basmati as well as non-Basmati aromatic rice. Indeed, the availability of the new state-of-the-art biotechnological tools can greatly facilitate purification and rehabilitation of scented rice as well as the use of their relevant genes in breeding better quality and more productive scented rice. As pointed out by Singh, the science of genomics and DNA mapping can be of tremendous help in this venture. India is participating in the international project on rice genomics and has already mapped two of its chromosomes. This work has further enhanced the capability of the Indian scientists to exploit this genetic wealth to the advantage of the Indian farmers and rice traders and exporters. This apart, as suggested in this treatise, these scented rice are ideally suitable for organic cultivation to cater to the rapidly expanding niche market for such products. This is because their nutritional requirement can easily be met through organic manures. Besides, the pest and disease management aspects can also be taken care of through the environment-friendly integrated pest management technology. Thus, what is needed is that agricultural research bodies should take up projects on the conservation and improvement of local scented rice and organisations like APEDA should explore and promote market avenues for them.

Chapter 6: welcome to nav bharat international: premium quality rice producer of india

The promise of aromatic rice in the form of a compendium called "A treatise on the scented rice of India". But the diversity of scented rice from India is the largest in the world, the.

Chapter 7: The promise of aromatic rice

In: Singh RK, Singh US (eds) A treatise on the scented rices of India. Kalyani Publishers, New Delhi, pp Google Scholar Singh N, Kaur L, Sodhi NS, Sekhon KS () Physicochemical, cooking and textural properties of milled rice from different Indian rice cultivars.

Chapter 8: Singh, R. K. (Ram Kathin) [WorldCat Identities]

Scented or aromatic rice, also finds a mention in various economic treatise between empires. On the shifting sands of time, rice, continued to be a serving delight, even to the dynasties of the Mughals.

Chapter 9: Indian Butter Chicken Recipe with Scented Basmati Rice

husbandry of scented rice. In: A treatise on the scented rices of India, Singh RK and Singh US (eds). Kalyani Publishers, New Delhi: Hegde DM, Sudhakara Babu SN, Aziz Qureshi A and Murthy.