**Table S1 Records of crops planted in Jiangsu during the historical period in historical documents**

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| --- | --- | --- | --- |
| **Period** | **Records (Chinese)** | **Records (English)** | **Historical documents** |
| Qin and Han Dynasties (221 BC-AD 220) | ***Chu Yue*** Zhi Di, Di Guang Ren Xi, Fan ***Dao*** Geng Yu, Huo Huo Geng Er Shui Rou, Guo Sui Luo Ha, Bu Dai Gu Er Zu, Di Yi Rao Shi, Wu Ji Jin Zhi Huan (***楚越***之地，地广人希，饭***稻***羹鱼，或火耕而水耨，果隋蠃蛤，不待贾而足，地埶饶食，无饥馑之患) | ***Chu Yue***is a vast and sparsely populated place, where people eat ***rice*** as a staple and fish as soup. | *Shi Ji, Huo Zhi Biography* |
| Qin and Han Dynasties (221 BC-AD 220) | ***Jiang Nan*** Di Guang, Huo Huo Geng Shui Rou, Min Shi Yu ***Dao*** (***江南***地广，或火耕水褥，民食鱼***稻*)** | ***Jiangnan*** is vast and cultivated, where people eat ***rice*** and fish. | *the Geographical Records of the Han Shu* |
| Three Kingdoms (AD 220-AD 280) | ***Wu Wang*** Ti Liang Cong Ming, Shang Yu Ren Shi, ……, Gu Bo Ru Shan, ***Dao*** Tian Wo Ye, Min Wu Ji Sui, Suo Wei Jin Cheng Tang Chi Qiang Fu Zhi Guo Ye (**吴王**体量聪明，善于任使，……，谷帛如山，***稻***田沃野，民无饥岁，所谓金城汤池强富之国也). | The state of ***Wu*** is a vast area of fertile ***paddy fields***, where ***rice***, cotton and silk are piled up like mountains. The people in this place are rich and will not starve. | *Records of the Three Kingdoms, Wu shu* |
| Wei, Jin and the Southern and Northern Dynasties (AD 220-AD 589) | Jiu Yue Si Mao, Zhao Yue: Jin Yan Jing Kang Xu, Miao Jia Duo Shang. Jin Er ***Mai*** Wei Wan, Gan Ze Pin Jiang, Ke Xia ***Dong Jing Jun***, Qin Ke Ken Zhi. You Bi Zhi Jia, Liang Dai ***Mai*** Zhong (九月巳卯，诏曰：近炎精亢序，苗稼多伤。今二***麦***未晚，甘泽频降，可下***东境郡***，勤课垦殖。尤弊之家，量贷***麦***种). | In the middle of September, due to the abundant rainfall, the emperor issued an imperial edict requiring the people of ***Dongjing Jun*** to start planting wheat. Those without grain can borrow wheat seeds from the government for planting. | *Song Shu, Biography of Emperor Xiaowu* |
| Wei, Jin and the Southern and Northern Dynasties (AD 220-AD 589) | ***Hai Ling Xian*** Fu Jiang Jie Hai, Duo Mi Shou, ……, Min Ren Sui Ci Er Lue Zhong ***Dao***, Bu Geng Er Huo Qi Li Suo Shou Bai Bei (***海陵县***扶江接海，多麋兽，千百为群，……，民人随此而略种***稻***，不耕而获其利所收百倍). | ***Hailing county***, next to the river connects with the sea, there people cultivate ***rice***easily. | *Naturalis Historia* |
| Wei, Jin and the Southern and Northern Dynasties (AD 220-AD 589) | Hun Yu Xiao (***Xiao Xian***) Xiang (***Su Qian***) Er Xian Jie, Xing Bei E, Kai ***Dao*** Tian, ……, Bi Nian Da Shou, Qing Miao Sui Zeng, Zu Ru Bei Chang, Min Lai Qi Li (浑于肖（***肖县***）相（***宿迁***）二县界，兴陂遏，开***稻田***，……，比年大收，顷亩岁增，租入倍常，民赖其利). | The state expanded rice fields in ***Xiaoxian county*** and ***Suqian county*** to let people plant ***rice.*** Year after year, their harvest increases. | *Records of the Three Kingdoms, Wei shu* |
| Sui and Tang dynasties (AD 581-AD 907) | Zeng ***Jiang Huai*** Zhi Yun, Zheng Jiang Dong Xi Sui Yun ***Mi*** Qi Shi Wu Wan Dan, Fu Yi Liang Shui Yi ***Mi*** Bai Wan Dan (增***江淮***之运，浙江东、西岁运***米***七十五万石，复以两税易***米***百万石) | By increasing transportation in the ***Yangtze and Huai River Basin***, the state transported 750000 **dan**of ***rice*** across the eastern and western of Zhejiang Province, and later exchanged 1 million **dan** of ***rice*** in taxes. | *Xin Tang Shu, Monograph on Food and Currency* |
| Sui and Tang dynasties (AD 581-AD 907) | Shi Sui (AD 731) Yang Zhou ***Lu Dao*** Sheng (是岁（731年）扬州***穞稻***生). | In AD 731, “***Lu Dao***” (a breed of Rice) was planted in Yangzhou. | *Xin Tang Shu, Biography of Emperor Xuanzong* |
| Sui and Tang dynasties (AD 581-AD 907) | Dian Liang Chu Shu ***Mai***, Zhen Ni Zuo Jing Mei (簟凉初熟***麦***，枕腻乍经梅) | When the ***wheat*** is first ripe, the weather in **Zhenjiang** is cool, and people rest under the plum tree. | *Pentasyllabic regulated verse Xian Ju Meng Xia Ji Shi* |
| Song and Yuan dynasties (AD 960-AD 1368) | ***Jiang Bei*** Zhi Min Za Zhi Zhu ***Gu***, ***Jiang Nan*** Zhuan Zhong ***Jing Dao***, Sui Tu Feng Ge You Suo Yi, ……. Yu Shi Zhao ***Jiang Nan***, Liang Zhe, Jing Hu, Ling Nan, Fu Jian Zhu Zhou Chang Li, Qu Min Yi Zhong Zhu ***Gu***, Min Fan ***Su, Mai, Shu, Dou*** Zhong Zhe, Yu ***Huai Bei Zhou Jun*** Gei Zhi; ***Jiang Bei*** Zhu Zhou, Yin Ling Jiu Shui Guang Zhong ***Jing Dao***, Bing Mian Qi Zu (***江北***之民杂植诸***谷***，***江南***专种粳稻，虽土风各有所宜，……。于是诏***江南***、两浙、荆湖、岭南、福建诸州长吏，劝民益种诸谷，民乏***粟、麦、黍、豆***种者，于淮北州郡给之；***江北***诸州，亦令就水广种***粳稻***，并免其租). | Farmers in ***the north of the Yangtze River*** cultivate a variety of grains, such as **f*oxtail millet, wheat, broomcorn millet, and soybeans***, while farmers in ***the south of the Yangtze River*** only cultivate rice. So, the emperor issued an imperial edict to let the people in the south of the Yangtze River also cultivate a variety of grains. If there were no crop seeds, the people in the ***north of the Yangtze River*** would give them the seed. It also allows the people of ***Jiangbei*** to cultivate **rice** and exempts the tax revenue on the people who grow ***rice.*** | *Song History, Monograph on Food and Currency* |
| Song and Yuan dynasties (AD 960-AD 1368) | Di Yi ***Jiang, Huai***, ***Liang Zhe*** Shao Han Ji Shui Tian Bu Deng, Qian Shi Jiu Fu Jian Qu ***Zhan Cheng Dao*** San Wan Hu, Fen Gei San Lu Wei Zhong, Ze Min Tian Gao Yi Zhe Shi Zhi, Gai Zao Dao Ye (帝以***江、淮、两浙***稍旱即水田不登，遣使就福建取***占城稻***三万斛，分给三路为种，择民田高仰者莳之，盖早稻也). | During the drought years in ***Jiang, Huai and Liangzhe***, the emperor sent envoys from Fujian Province to take 30000 Hu (An ancient unit of measurement) of ***Zhancheng rice*** (a drought resistant rice variety) for planting. The people of in the three areas chose areas with higher altitude and less water to grow this kind of rice. | *Song History, Monograph on Food and Currency* |
| Song and Yuan dynasties (AD 960-AD 1368) | Xi Ning Si Nian Da Shui, Zhong Tian Jie Mo, Du Chang Zhou You Shen, ***Kun Shan***, Chen Xin, Gu Yan, Tao Zhan Shu Jia Zhi Wei Gao Da, Liao Wu Shui Huang, ***Dao Mai*** Liang Shu (熙宁四年大水，众田皆没，独长洲尤甚，昆山、陈新、顾晏、淘湛数家之圩高大，了无水患，***稻麦***两熟) | In the fourth year of Xining many rice fields were flooded. ***Kunshan, Chenxin, Guyan and Taozhan*** are four places where the fields are not submerged due to their high levees, so ***rice and wheat*** are planted forming a dual cropping system. | *Wu Jun Zhi* |
| Song and Yuan dynasties (AD 960-AD 1368) | Zhe Shou ***Hai Ling***, Dai ***Mai*** ***He*** Zhi Liang Shu (谪守***海陵***, 逮***麦禾***之两熟) | ***Hailing county*** has formed a ***rice and wheat*** dual cropping system. | *Tao Shan Ji* |
| Song and Yuan dynasties (AD 960-AD 1368) | ***Wu Zhong*** Di Wo Er Wu Yi, Qi Yuan Xi Zhi Suo Yu Hu Hai Zhi Suo Chu Bu Ke De Er Dan Ming Ye, Qi Jia Ze Yi ***Mai*** Zhong ***He***, Yi Sui Zai Shu, ***Dao*** You Zao Wan, Qi Min Pin Shen Fan (***吴中***地沃而物移，其原隰之所育湖海之所出不可得而殚名也，其稼则刈***麦***种***禾***，一歳再熟，稻有早晚，其名品甚繁). | ***Wuzhong*** is a place with fertile land, numerous rivers and lakes, and abundant water. People can plant a variety of crops here. After planting ***wheat***, they plant ***rice***, sowing two crops a year. There are many varieties of ***rice***. | *Wu Jun Tu Jing Xu Ji* |
| Ming Dynasty (AD 1368-AD 1644) | Qi San Yue Er Zhong, Liu Yue Er Shu, Wei Zhi “***Mai*** Zheng Chang” (其三月而种，六月而熟，谓之“***麦***争场) | Corn is planted in March and ripens in June. People call it "competing with ***wheat***for field". | *Dao Pin* |
| Ming Dynasty (AD 1368-AD 1644) | Zhi Zhong ***Mai*** Zhi Duo Shou, Er Bu Zhi Suo Yi Duo Shou Zhi Gu, Zai De Qiu Qi, Bei Si Shi Ye, ……, Xia Mai Zi Yu Gao Di, Huo ***Dao*** Bi, Yi Yang Yu Tian, Shi Bei Qiu Qi, ……, Duo Nong Ku Zhong ***Mai*** Zhi Lao, Zhen Cuo Zi Zhi Yi, Gan Xin Bo Shou, Shen Zhi Shi Shi, Chun Hua Jue Wang (知种***麦***之多收，而不知所以多收之故，在得秋气，备四时也……下麦子于高地，获***稻***毕，移秧于田，使备秋气……惰农苦种***麦***之劳，耽撮子之逸，甘心薄收，甚至失时，春花绝望). | People first plant ***wheat*** on high ground, and then transplant wheat to rice fields after ***rice*** is harvested from the rice field. | *Bu Nong Shu Jiao Shi* |
| Qing Dynasty (AD 1636-AD 1912) | ***Wu Min*** Zhong Sui Shu Yi Yi ***Mai***, Yi ***Dao***. ***Mai*** Yi Bi, Tian Shi Chu, Yang Yu Xia, Xiu Yu Qiu, Ji Dong Nai Huo. Gu Chang You Yu Xue Zhi Huan (***吴民***终岁树艺一***麦***、一***稻***。***麦***刈毕，田始除。秧于夏，秀于秋，及冬乃获。故常有雨雪之患). | The people of ***Wu*** can grow two crops a year, one season of ***rice*,** and one season of ***wheat***. | *Jiang Nan Cui Geng Ke Dao Bian* |
| Qing Dynasty (AD 1636-AD 1912) | Yu Qu Qiu Yi Fang He Zhu Shao Bo Dai, Qin Jian Zao, Zhong, Wan ***Dao*** Zhi Zhong Jie Bei, Er Jing Wu Zai Zhog Zhe. Xin Chang Yi Zhi, Yi Xun Lao Nong, Jie Wei Jia Qing Jiu Nian Yi Qian, Han You Shui Zai, Zhong ***Dao*** Yi Sui Liang Shu. Jiu Nian Yi Hou, Hu Shui Qiu Zhang, Wu Bai Zhe Kai, Tian Wei Kong Yan, Gu Dan Xing Qi Yi Shou, Er Bu Ke Yi Zai Zhong (余去秋以防河驻邵伯埭，亲见早、中、晚***稻***之种皆备，而竟无再种者。心尝疑之，以询老农，皆谓嘉庆九年以前，罕有水灾，种***稻***一岁得两熟。九年以后，湖水秋涨，五坝辄开，田惟恐淹，故但幸其一收，而不可以再种). | Before a disastrous flood in AD 1804, people in ***Jiangnan*** could plant ***rice*** twice a year. After AD 1804, the lake water rose frequently in autumn. Farmers were afraid that the ***paddy fields*** they planted would be submerged, so they seldom planted ***rice.*** | *Jiang Nan Cui Geng Ke Dao Bian* |