

New Rice Seed Policy for Rice Experiment Station Varieties

To keep the red out!

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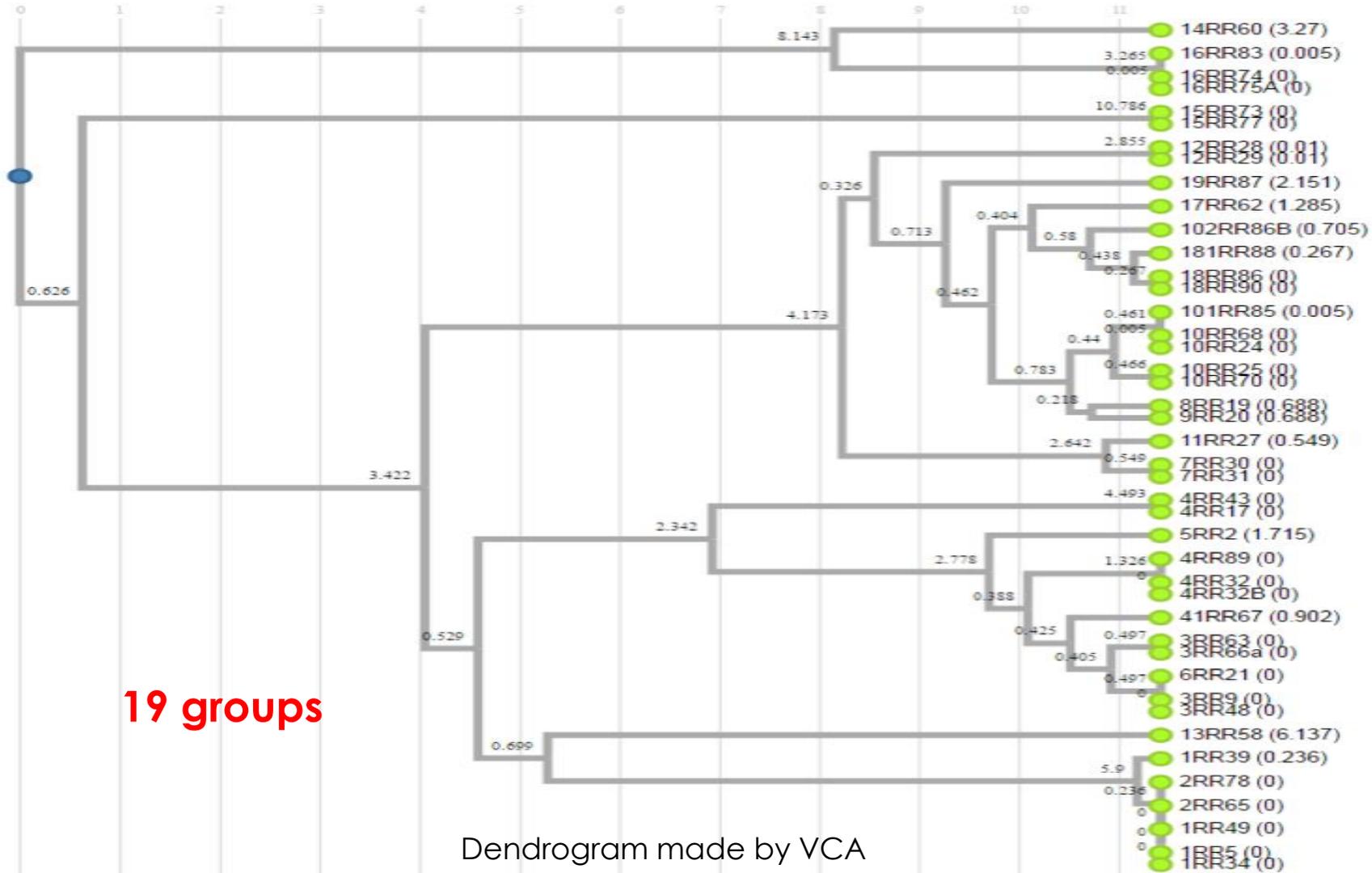
RED RICE RESEARCH BY RES



1. RES varieties are distinctly separated from the RR collection in the main branch and **did not evolve from RES varieties!**
2. DNA marker analysis aligned the accession into 19 groups.
3. These groups formed about 6 clusters based on their marker relationships, phenotype, and accession location.
4. There are 20 markers that can be used to validate groupings.
5. Samples have been packaged, securely stored, and will be transferred to UC scientist to carry on their weedy red rice research efforts.
6. **Do not bring suspected samples of red rice to RES.**



RED RICE RESEARCH



Observation and Indications- K. McKenzie

- ▶ Genetically different types found in different regions suggesting a site of origin (introduction) and dispersal.
- ▶ Weedy red rice associations indicated with specialty variety introductions, research, and production.
- ▶ Contamination of new fields with weedy red rice by sale/movement of non-certified seed was documented in multiple instances covering different counties.
- ▶ Expansion of one new type would appear to have occurred in just the past few years but its origin unknown.



The Board of Directors met November 10th, 2016 and adopted a new policy on the planting and use of our varieties as part of an effort to stop the expansion of weedy red rice in California. The planting of non-certified rice seed has been revealed as a practice associated with new infestations of weedy red rice. This includes farm-saved seed and the sale of non-certified seed.

1. Only classes of certified seed (Foundation, Registered, and Certified) of CCRRF rice varieties may be planted.

2. All restrictions associated with US Plant Variety Protection Act (PVP) must be followed (e.g. varieties to be sold as a class of certified seed only). Possible violations will be referred to the California Department of Food and Agriculture (CDEA) for investigation.

3. Foundation Seed of CCRRF rice varieties will only be allocated through the California Crop Improvement Association to California rice growers who have been approved to produce certified classes of rice seed.



- 4. In accordance with state seed law, handlers of rice seed must also be registered with CDFA.**
- 5. Foundation Seed cannot be resold or transferred without written permission from CCRRF and varieties are not approved for export from California.**
- 6. Purchasers of Foundation Seed are now required to sign a Material Transfer Agreement for patented rice varieties and their customers must be notified of the restrictions on the use of seed of CCRRF varieties.**



But I have saved my own seed for 2017?

1. If you have been doing this, it is not a good idea, you may have an infestation already, and there certainly is now a significantly higher risk of red rice contamination.
2. If you are selling non-certified seed of RES varieties you are violating state seed laws and have a significant risk of contaminating yours as well as someone's field. All of this will cause you some problems with the buyer, CDFA, RES, and the California Rice Industry.
3. There is an adequate amount of certified seed of our major medium grain varieties in the CCIA program to cover planting needs produced annually. (est. enough certified Calrose varieties for 650,000 acres)
4. Our new releases, other grain types, or specialties may be limited.
5. Indications are that planting "certified or approved seed" will be required in California in the near future.
6. You should check with your drier, warehouse, marketing group, and buyer for their requirements before you plant.
7. If you choose to plant non-certified seed understanding the risks, then you should certainly at least have a "red rice rub-out" test on your seed before planting.

Analysis of Foreign Grown “Calrose” Samples #1

- ▶ RES was contacted this summer regarding an offering for sale of 600 MT of Organic Brown Rice Calrose from Argentina out of the Port of Houston. We were provided samples from cooperators in Texas (USA Rice). The RES DNA Lab undertook a project to determine if this was any RES rice variety.
- ▶ The RES DNA Lab work completed November 3, 2016 concluded that the Imported Argentine Calrose Organic Brown Rice, is M-202 (with some short and long grain contamination). M-202 was released in 1985, before we started PVP or Patent protection. 2015 was our last sale of foundation seed. Don't know who they got the seed from and don't see any legal path on this or if we could find out the California seed source.



Analysis of Foreign Grown “Calrose” Samples #2

- ▶ In November RES received a sample of “Guadiamar” milled rice from Spain that was identified as Calrose. The RES DNA Lab analyzed this sample and determined it was M-103, a variety protected under the US Plant Variety Protection Act, but no longer in seed production. Further search revealed that a 1999 application had been made for PVP protection by Hisparroz, S. A, a Spanish company, but abandon. In addition, Guadiamar is on the list of approved medium grain varieties for California suggesting it was “developed” in California and had seed production. PVP protection on M-103 has since expired.
- ▶ Demonstrated RES has technology to analyze milled and brown rice samples for presence and percentage RES varieties.



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