

# **RICE EXPERIMENT STATION**

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**Managed by a nonprofit cooperative foundation owned by California growers providing rice breeding and variety development for the California rice market and providing land, office and greenhouse facilities, and agronomic management for the University of California-Davis**

## **2024 BUDGET PROPOSAL**

## INTRODUCTION

The Rice Experiment Station (RES) Budget is prepared annually with the fiscal year ending December 31<sup>st</sup>. In November, after the election of new California Cooperative Rice Research Foundation (CCRRF) board members and officers, a budget committee is appointed. Budgeting information is developed from financial reports, anticipated expenses, projected operational costs, previous budgets, and proposed capital expenditures. A total budget proposal is prepared including different options by the budget committee and distributed to the Board of Directors and also the California Rice Research Board Liaison. In December, the CCRRF Board of Directors adopts a final total budget for the coming year. In January, this Research Budget Proposal (state budget) is approved and then submitted to California Rice Research Board (CRRB).

## 2023 RESEARCH BUDGET REVIEW

Table 1. Rice Experiment Station 2023 budget and expenditures as of Dec. 1, 2023.

	2023 Budget	2023 Expenditures as of Dec. 1, 2023	Difference
Operations	\$2,927,130	\$2,743,994	\$183,136
Capital Expenditures*	\$201,834	\$121,252	\$80,582
Total	\$3,128,964	\$2,865,246	\$263,718

\*Capital expenditures are covered by CCRRF and the Rice Research Trust.

The RES Total Budget in 2023 was \$3,128,964 (\$2,927,130 for operations + \$201,834 for capital expenditures). The CRRB grant to the RES for rice research in 2023 was \$2,476,550. Total operational expenditures as of December 1, 2023, was \$2,865,246. This left 8.4% of the annual 2023 budget to fund the month of December which represents 8.3% of the budget year. Final total expenditures were not calculated at the time of writing this proposal but are expected to exceed the budget but 1-2% due to encumbered repair and maintenance expenditures that are not reflected in the current expenditures. Areas where the budget was overspent in 2023, as of December 1, include the budget categories of medical insurance (122%), overtime (111%), variety patents (238%), and the rice field day (133% over budget after donations). In general, increased prices for insurance, increased catering and bus expenses for field day, legal/patenting expenses for Calhikari-203 and M-521, can explain the increases in expenditures. Significantly increased retirement expenses are projected for 2024 as new staff hired in 2022 have become eligible for retirement benefits in 2024.

The CRRB will be credited with receipts of \$18,071 from the 2023 sale of paddy rice (mixed types for feed) from research areas. The rice sold was produced on RES land and used for CRRB funded research. The \$24,572 will be returned to CRRB or applied as a credit to the 2023 research grant as preferred by CRRB.

## 2024 RESEARCH BUDGET PROPOSAL

A **2024 RES Rice Research Budget of \$2,609,586 is proposed for approval by the CRRB Board of Directors for rice breeding and research in 2024.** This 2024 rice research (state) budget is \$133,036 (4.6%) more than the 2023 budget that covered operations but not capital expenditures. The CCRRF Board of Directors approved the 2024 total budget of \$3,189,911 (\$3,079,151 operational and \$110,760 capital expenditures) on December 4, 2023, and the CRRB budget request of \$2,609,586 on January 19, 2024.

	2023	2024	% inc. †
CCRRF State budget	\$2,476,550	\$2,609,586	4.6
RRB credits	\$24,572	\$18,071	
CRRB Grant Request		\$2,591,515	

† Percent increase over previous year.

A **total CRRB grant of \$2,591,515** (\$2,609,586 minus 2023 credits of \$18,071) is requested for the **RES Rice Breeding Program in 2024.** CCRRF recognizes constraints on its budget may occur because of limited CRRB funds, and CCRRF will fund within its monetary resources a reasonable difference between the budget request and the actual 2024 CRRB grant. The CRRB has typically not funded capital expenditures and they are not included in the budget proposal request. The Rice Research Trust (RRT) and CCRRF are funding capital expenditures, which are listed as a line item to clarify RES operating costs. In addition, all ROXY research, legal, certification and other expenses related to the launch of this technology are being funded by the RRT and are not included in the 2024 operational budget.

### 2024 RESEARCH ACTIVITIES SUPPORTED BY THE CRRB GRANT

The 2024 budget will provide the support required to maintain an effective, efficient, and extensive rice breeding and variety improvement program at the Rice Experiment Station (RES). The support includes a 16-member staff, facilities, equipment, supplies, and labor required to conduct a successful rice variety improvement program and helps supports UC scientists conducting research at RES.

Support provided by the CRRB has enabled the RES to focus exclusively on breeding and variety development with a long-term perspective. The RES released two new varieties in 2023. The new variety releases included a new premium quality short grain Calhikari-203 (CH-203). The CH-203 variety has a 10% yield advantage over CH-202 and CH-201 with improved quality, improved seedling vigor above CH-202 (but less than CH-201) and is the first in this class to be non-pubescent. The second variety release was the first Calrose medium grain rice variety to have the ROXY herbicide tolerance trait. The variety, named M-521, also has blast resistance similar to M-210.

The CRRB grant supports operations that help the Rice Experiment Station run a successful breeding program with a long-term perspective including:

- ◆ A breeding nursery in San Joaquin County to screen and select for cold tolerance.
- ◆ A refrigerated greenhouse allowing enhanced cold tolerance screening.
- ◆ A winter nursery in Kauai, HI to advance breeding populations in the off-season for faster development of new California varieties.
- ◆ Molecular marker services enabling breeders to select important traits in early generations that are otherwise difficult to identify. These services are housed in a new state of the art facility funded by the CCRRF.

In addition to the regular breeding activities, specific objectives for 2024 supported by the CRRB grant include:

- ◆ A foundation seed increase for 2 potential 2025 releases that include a Arborio variety and a fragrant Calrose variety.
- ◆ Continued evaluation of a promising new ROXY Calrose varieties currently under seed increases at the Hawaii nursery.
- ◆ A mutation breeding program currently focusing on an earlier maturing M-211 with improved grain quality and milling stability at lower grain harvest moistures while maintaining its high yield potential. In addition, this program will also continue to look for new novel herbicide tolerance traits.
- ◆ Continued development of earlier maturing medium grain varieties with Calrose quality.
- ◆ Variety development and performance trials to develop and release the next generation of short, medium, and long grain varieties.

The development of herbicide resistant rice (ROXY™) will continue. Albaugh LLC, is the herbicide partner for commercialization of the ROXY Rice Production System (ROXY RPS). Albaugh is funding registration of the ALB2023 herbicide. They are also planning concurrent approval of the herbicide by EPA and the California Department Pesticide Regulations in 2024 with the help of the California Rice Commission. Funding for intellectual property protection will continue by CCRRF as well as any other incurred expenses. Development of business plans, trait licensing, seed production, stewardship, and education are 2024 planned activities. These activities will be funded by Albaugh, CCRRF, and the RRT and additional funding for these additional activities, outside of developing new ROXY varieties, are not included in the operational budget request to the CRRB.

The CCRRF provides the operational and equipment support for Weed, Insect, and Agronomic Research at RES for the University of California-Davis scientists, including the Systems Research Area. Rice Weed Research by UC at RES is operating year-round in the Weed Research greenhouse and has 16 acres of dedicated research land. UC Research occupies an additional 18 acres. Operational support is also provided for UC staff research associates housed at RES. CCRRF receives no financial support for these activities from the UC.

**2024 CRRB Itemized Budget Proposal**

Item	2024 CRRB Budget	% of 2023 CRRB Budget
Salaries	\$1,376,855	104%
Retirement	\$91,163	121%
Life Insurance	\$10,748	100%
Medical Insurance	\$195,758	124%
Social Security	\$103,264	104%
Unemployment Insurance	\$16,765	100%
Worker's Compensation	\$45,000	100%
Repair & Maintenance	\$92,621	100%
Office Expense	\$55,775	115%
General Supplies	\$6,370	100%
Research Supplies	\$30,000	100%
DNA Lab	\$45,000	100%
Janitorial Service	\$12,000	122%
PG&E (gas and electricity)	\$77,000	110%
Telephone	\$12,486	115%
Security	\$2,200	100%
Insurance-(Crime Bond Renewal)	\$655	100%
Insurance-(Facilities & Equip)	\$55,000	110%
Insurance-(Officers & Directors)	\$5,000	100%
Legal & Accounting	\$30,000	100%
Auto & Truck Expense	\$8,593	100%
Fuel and Oil	\$28,000	57%
Fertilizers & Chemicals	\$88,000	92%
Foundation Seed	\$0	-
Custom Operations	\$15,050	100%
Water (RID)	\$4,421	75%
Equipment Rental	\$1,860	100%
Taxes and Licenses	\$50,250	107%
Travel	\$26,750	100%
Hawaiian Nursery	\$85,000	113%
Safety Compliance	\$2,500	125%
San Joaquin Nursery	\$3,000	100%
Rice Field Day	\$15,000	150%
Research Assessment	\$0	-
Variety Protection Fee	\$5,000	100%
Variety Patent	\$12,500	63%
(RRB Credits)	\$18,071	
TOTAL	\$2,591,515	
(Capital Expenditures)	\$110,760	
(Total with Capital Exp.)	\$2,702,275	