

CALL FOR PAPERS- DEADLINE: September 3, 2021

AFRAQ2021 encourages the submission of high quality oral and poster presentations. We strongly encourage authors to consider poster presentations because poster sessions will be an integral part of the program. Papers submitted for "oral presentation only" may not be accepted as oral presentations due to the limited number of available time slots. English encouraged, but 2 official languages (English or French) accepted. Power Point Presentation – Slides - same as above – English strongly encouraged. Oral Presentation: any of the 2 official languages. At the conference, the abstracts may be presented in English or French. Title the same language as presentation.

Each oral presenter shall be entitled to no more than 20 minutes comprised of 15 minutes for a presentation, plus 5 minutes for questions. Authors of studies involving proprietary products or formulations should present this information in workshops or the trade show. Oral presentations can only use Power Point. Overhead projectors, slides and video players will not be available or allowed

All presenters are required to pay their own registration, accommodation and travel expenses. AFRAQ2021 cannot subsidize registration fees, travel or hotel costs

INSTRUCTIONS FOR PREPARATION OF ABSTRACTS

Extended Abstract Format – Please refer to the sample.

- TITLE OF PAPER :** The paper title is printed in CAPITAL LETTERS, with the exception of scientific names which should be Upper/lower case and italicized. Scientific names should not be preceded or followed by commas or parentheses or other markings.
- AUTHOR(S) :** The first name should be the presenting author. Use *after the presenting author. Type in upper/lower case.
- ADDRESS AND EMAIL :** Type only the presenting author's institution, address and email. Type in upper/lower case.
- MAXIMUM LENGTH :** One Page
- PAGE SIZE :** Standard 210mm x 297mm A4 paper (portrait)
- MARGINS :** 1-inch margin throughout(left/right/top/bottom)
- SPACING :** Single spaced
- PARAGRAPHS :** Paragraphs should be separated by a blank line and should not be indented.
- FONTS :** Character fonts should be 12 point type.
- FIGURES & TABLES :** Figures and tables are highly recommended. They should be reduced to the appropriate size for a one page abstract and should be clearly readable at the reduced size in black print only. The reduced figures and tables should be included in the abstract in camera-ready form.
- MEASUREMENTS :** Use metric units of measurement. When needed, English equivalents may be given in parentheses.

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EVALUATION OF JUVENILE AUSTRALIAN RED CLAW CRAYFISH (*Decapoda quadricarinatus*) FED PRACTICAL DIETS WITH AND WITHOUT SUPPLEMENTAL LECITHIN AND/OR CHOLESTEROL

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Red claw crayfish (*Decapoda quadricarinatus*) are one of more than a hundred aquatic freshwater crayfish. However, because of its rapid growth rate, ease of spawning, wide temperature tolerance, and lack of a larval stage, red claw may be the best candidate for aquaculture in the United States. Red claw are only being investigated as an aquaculture species in the very early stages of their nutritional requirements and practical diet formulations. No dietary studies have been conducted to determine their nutritional requirements and practical diet formulations. Lecithin and cholesterol are added to their diet, these two nutrients are essential for growth and cholesterol are very expensive. Since diet costs can be as much as 70% of the total cost of an aquaculture enterprise, it is imperative that the least expensive diet be formulated. The present study was conducted to determine if choline (Chol) needs to be added to a practical diet for red claw crayfish.

An 8-week feeding trial was conducted in a recirculating system with seven 200 liter, each stocked with 100 juvenile red claw crayfish. Individual tanks within fibreglass tanks, each containing aeration system, water filter, and mechanical filter. Water temperature was maintained at 22-24°C and lighting was provided by a 12-hour photoperiod cycle. Ammonia, nitrite, and nitrate were tested daily. All tanks were fed three times per week. The growth performance of juvenile red claw when fed four practical diets with or without cholesterol and lecithin. Other practical diets included menhaden fish meal, soybean meal, shrimp meal, wheat flour, vitamin and mineral mix, pellet binder, cod liver oil, and corn oil (Table 1).

After 8 weeks, red claw crayfish fed a practical diet without cholesterol (Diet 1) had significantly ($P < 0.05$) lower final weight, percentage weight gain, and specific growth rate (SGR) compared to crayfish fed all other diets (Table 2). These results indicate that a practical diet containing 2% cod liver oil and 1% corn oil and having no lecithin appears to be sufficient and that lecithin may not be necessary for juvenile red claw diets.

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TABLE 1. Formulation of experimental diets fed to red claw crayfish.

	Diet			
	1	2	3	4
Menhaden Fish Meal	25.0	25.0	22.0	20.0
Soybean Meal	33.0	35.0	35.0	44.5
Lecithin 0.5	0.0	0.5	0.0	0.0
Cholesterol	1.0	1.0	0.0	0.0
Other	38.5	39.0	39.5	30.5

TABLE 2. Final weight, percentage weight gain, specific growth rate (SGR), and percentage survival of red claw crayfish fed four practical diets. Means in a column with different letters were significantly different ($P < 0.05$).

	Diet			
	1	2	3	4
Final weight (g)	0.97 ^a	0.90 ^a	3.60 ^b	5.13 ^b
Weight gain (%)	194 ^a	207 ^a	117 ^b	244 ^b
SGR (day ⁻¹)	2.76	2.66	4.60	5.41
Survival (%)	76.0	64.0	56.0	80.0

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