МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РОССИЙСКОЙ ФЕДЕРАЦИИ

Федеральное государственное бюджетное образовательное учреждение

высшего образования

**«КУБАНСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ»**

**(ФГБОУ ВО «КубГУ»)**

**Кафедра водных биоресурсов и аквакультуры**

**КУРСОВАЯ РАБОТА**

По дисциплине «Практикум по товарному рыбоводству»

**ТЕПЛОВОДНОЕ ХОЗЯЙСВТО НА РЕКЕ МАНЫЧ**

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ТЕПЛОВОДНОЕ ХОЗЯЙСТВО, КАРП, БЕЛЫЙ ТОЛСТОЛОБИК, ПЁСТРЫЙ ТОЛСТОЛОБИК, БЕЛЫЙ АМУР, СТЕРЛЯДЬ, РАЗМНОЖЕНИЕ, АРЕАЛ, ИНКУБАЦИЯ, УДОБРЕНИЕ, ПЛОТНОСТЬ ПОСАДКИ, УТКИ, ОХРАНА ПРИРОДЫ, ЭФФЕКТИВНОСТЬ.

Цель работы — запроектировать прудовое тепловодное, полносистемное, экстенсивное хозяйство с двухлетним оборотом рыбоводное хозяйство в бассейне реки Маныч.

В ходе работы описаны основные технологические процессы разведения и выращивания карпа в поликультуре с растительноядными рыбами, и комбинированной технологией выращивания рыбы (рыба—утки), произведен рыбоводный расчет при выходе 420 т товарной продукции в год.

СОДЕРЖАНИЕ

[Введение](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520267) 4

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[5.2 Искусственное оплодотворение икры](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520281) 26

[5.3 Инкубация икры](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520282) 27

[5.4 Зарыбление прудов личинками](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520283) 29

[5.5 Подращивание сеголетков](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520284) 29

[5.6 Зимовка сеголетков](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520285) 30

[5.7 Выращивание товарной рыбы](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520286) 31

[5.8 Плотность посадки](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520287) 32

[5.9 Кормление](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520290) 34

[5.10 Выращивание уток на рыбоводных прудах](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520290) 34

[6 Рыбоводный расчёт](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520291) 36

[7 Охрана природы](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520292) 43

[8 Эффективность работы рыбоводного предприятия](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520299) 45

[Заключение](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520300) 47

[Список используемых источников](file:///C%3A%5CUsers%5Ckired%5CDesktop%5Cdiplom%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D1%8B%D0%B5%20%D0%BF%D0%BE%20%D0%98%D1%85%D1%82%D0%B8%D0%BE%D0%BB%D0%BE%D0%B3%D0%B8%D0%B8%5C%D0%9A%D1%83%D1%80%D1%81%D0%BE%D0%B2%D0%B0%D1%8F%20%D0%A2%D0%BE%D0%B2%D0%B0%D1%80%D0%BD%D0%BE%D0%B5%20%D0%A0%D1%8B%D0%B1%D0%BE%D0%B2%D0%BE%D0%B4%D1%81%D0%B2%D1%82%D0%BE%20%D0%91%D1%83%D0%BB%D0%B3%D0%B0%D0%BA%D0%BE%D0%B2.doc#_Toc444520301) 48