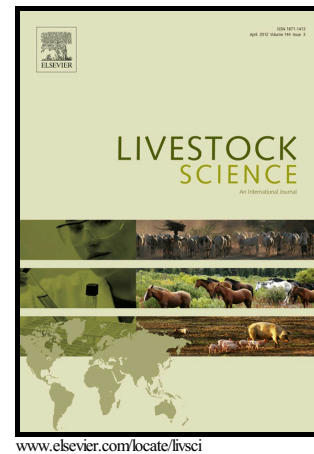


Author's Accepted Manuscript

Effects of gel-embedded embryos on developmental competence of separated bovine blastomeres

Theesit Juanpanich, Tayita Suttirojattana, Yuanyuan Liang, Osamu Dochi, Rangsun Parnpai, Kei Imai



PII: S1871-1413(17)30338-4
DOI: <https://doi.org/10.1016/j.livsci.2017.11.010>
Reference: LIVSCI3348

To appear in: *Livestock Science*

Received date: 19 May 2017
Revised date: 7 November 2017
Accepted date: 8 November 2017

Cite this article as: Theesit Juanpanich, Tayita Suttirojattana, Yuanyuan Liang, Osamu Dochi, Rangsun Parnpai and Kei Imai, Effects of gel-embedded embryos on developmental competence of separated bovine blastomeres, *Livestock Science*, <https://doi.org/10.1016/j.livsci.2017.11.010>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Effects of gel-embedded embryos on developmental competence of separated bovine blastomeres

Running head: Gel embedding of separated bovine blastomere

**Theesit JUANPANICH^{1,2}, Tayita SUTTIROJPATTANA¹, Yuanyuan LIANG¹,
Osamu DOCHI², Rangsun PARNPAI¹ and Kei IMAI²**

¹Embryo Technology and Stem Cell Research Center, School of Biotechnology, Suranaree University of Technology, Nakhon Ratchasima, Thailand, and ²Department of Sustainable Agriculture, College of Agriculture, Food and Environmental Sciences, Rakuno Gakuen University, Ebetsu, Hokkaido, Japan

Corresponding author: rangsun@g.sut.ac.th, imai@rakuno.ac.jp

ABSTRACT

This study aimed to examine how gel embedding compared with the Well-of-Well (WOW) system when culturing bovine separated blastomeres, in terms of developmental competence rates and blastocyst quality. We first optimized the gel-embedding method via culturing intact zygotes in either 1% agarose or 1% calcium alginate gel. Gel-embedded groups and control did not differ in development rates, but the 1% calcium alginate group was selected for subsequent experiments due to higher blastocyst recovery. The separated embryo group had higher potential for blastocyst production than the intact embryo group. Among separated blastomeres (2- and 8-cell), WOW and 1% calcium alginate did not differ in blastocyst formation rate, except between the 2-cell alginate and WOW groups, with the

Download English Version:

<https://daneshyari.com/en/article/8502082>

Download Persian Version:

<https://daneshyari.com/article/8502082>

[Daneshyari.com](https://daneshyari.com)