Selenium-enriched eggs on the Eastern European Market: prospects and limitations

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The aim of the present work is to analyse prospects and limitations in the commercial production of Se-eggs in Russia and Ukraine. The technology of producing Se-enriched eggs first originated from the Scottish Agricultural College in 1998. Today there are about 20 poultry farms in Russia producing Se-eggs commercially. They are situated in various regions of the country ranging from St. Petersburg up to Siberia and the Far East. In most instances, these eggs are sold with distinguishable names and brands including "Rejuvenating", "Aksais's sun", "Spring of Cheerfulness", "Universal", "Oval Wonder", "Strong eggs", "Activi\textit{ta}", "Selena", "Healthy Selenium". The level of Se delivered in a single egg varies from 20 up to 35 \textmu g. Prices for Se-enriched eggs vary and are usually higher by 10-50\% in comparison with normal table eggs. In general, about 38 billion eggs were produced in Russia in 2006 and about 40\% of them were eggs with modified composition (containing increased levels of various vitamins, omega-3 PUFAs and selenium). The egg under the brand "Bag of Life" are produced at the level of 1.2 million eggs daily in Ukraine and sold all over the country. The technology of the egg production is protected by the Ukrainian patent. One important advantage for Russia and the Ukraine in terms of Se-egg production is that they do not need to comply with EU feed additive legislation for local use and they also have strong marketing support. A major limitation in Se-egg production is a lack of public knowledge concerning the beneficial effects of selenium in relation to human health.