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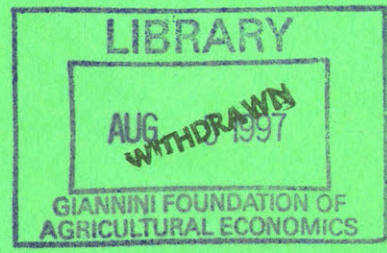
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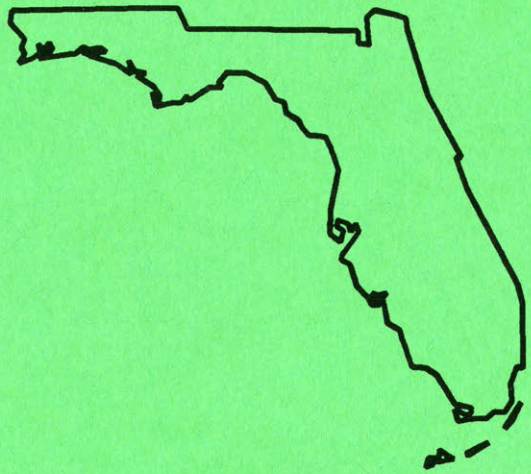
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# Impact of the Regulatory Environment Facing Florida Dairy Farmers



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## **Abstract**

Government regulations have a significant impact on Florida dairy farmers. According to a sample of farmers, waste disposal activities on dairy operations are most negatively impacted by government regulations. Most of those farmers viewed milk and feed inspections as beneficial to their businesses. The average dairy farmer spent 22 percent of the work day complying with governmental regulations. Increased flexibility and more common sense in rule implementation were the main suggestions made by farmers to improve the current regulatory system.

**Key words:** dairy, regulations, impact



# Impact of the Regulatory Environment Facing Florida Dairy Farmers

Kenneth R. Tefertiller, Carlos Jauregui and Michael T. Olexa<sup>1</sup>

## Introduction

Residents of the urban state of Florida are generally interested in the environment and usually support laws and regulations intended to protect it. Unfortunately, the costs and benefits of such laws and regulations are seldom researched before they are passed. This oversight is compounded by the duplication of regulations among federal, state, regional and county agencies.

At the federal level the Environmental Protection Agency (EPA) is responsible for a number of laws including, but not limited to, the following: Clean Air Act (CAA); Endangered Species Act (ESA); Wetland Regulations; Worker Protection Standards; and the Federal Insecticide, Fungicide and Rodenticide Act.

The Florida Department of Environmental Protection (DEP) is the state agency that is primarily responsible for environmental regulations. It targets the following areas: waste management; ground water discharge; hazardous waste; underground and above-ground storage tanks; drinking water standards; and wetlands. Dairy regulations relating to milk quality, dairy feed and herd health are mainly established and enforced by the Department of Agriculture and Consumer Services.

At the regional level, the Florida Water Resource Act of 1972 systematized the water management districts. These districts operate as a statewide network to manage the quality and quantity of state water resources. Their regulatory programs include consumptive use permits, irrigation restrictions, surface water permits and well construction permits.

At the county level the most important environmental legislation is the Local Government Comprehensive Planning and Development Act. This Act mandates that each county develop and implement a comprehensive plan for land and water use in the county via zoning and other methods.

The impact of laws and regulations issued by these government agencies presents a complex challenge for commodity production with some commodities being affected more than others. To fully measure the extent to which regulations have affected the agricultural producer, it is necessary to understand the complexity and interactions of the many government regulations related to farming.

Many of the regulations that affect dairy farmers are not specifically designed for them but are instead laws that apply to the economy and the general public on such issues as water, land, labor and chemicals. The underlying assumption of many of these regulations is that any externality will be absorbed by the general public.

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Certain circumstances may place a dairy farmer within the regulatory oversight of the ESA. For example, a dairy farmer decides to extend agricultural operations to previously unused portions of his/her farmland. If a protected species has its critical habitat on this land and it is likely that this habitat will be destroyed, the dairy farmer will be unable to utilize the area.

### *Clean Air Act*

The CAA was passed to prevent and control air pollution in order to promote public health and welfare. Under this law, air pollutants are deemed adverse to the public welfare if they affect climate, weather, property, economic values or personal comfort. Because of the odors emitted during the course of milk production, dairy farmers may be subject to this law's regulatory oversight.

### *Feedlot and Dairy Wastewater Treatment and Management Requirements*

FEEDLOTS protect the surface waters of the state by promoting safe water quality. As stated by these requirements, dairy farmers may not discharge processed wastewater pollutants into the surface waters of the state for any storm events equally or less severe than the 25-year, 24-hour storm. Wastewater includes water from flushing barns, milking parlors and dairy feedlots where cows are confined and fed. The 25-year, 24-hour storm involves a level of rainfall within a 24 hour-period that will not likely be exceeded more than once in a 25-year period. Dairy farmers who fail to comply with the FEEDLOTS must obtain a wastewater permit. This permit requires dairy farmers to develop methods to eliminate surface water pollution.

Without exception, FEEDLOTS apply to dairies with 700 or more mature cows. Dairies with 200 to 699 mature cows must comply with FEEDLOTS if pollution occurs at sites where cows have direct contact with surface waters or with manmade devices—such as pipes or ditches—that lead to surface waters. In certain circumstances, FEEDLOTS apply to dairies with fewer than 200 mature cows if the Department of Environmental Protection determines that those dairies are significant sources of pollution.

Dairies in the Okeechobee Drainage Basin are subject to separate regulatory requirements that are specific to the Basin. Because of water-quality problems in this area, all dairies are required to obtain wastewater permits and to implement BMPs to control phosphorus and nitrogen runoff. The BMPs include fencing to keep cattle away from the water flow and the collection, treatment and reuse of barn wastes.

### *Groundwater Permitting and Monitoring Requirements*

Producers who are exempt from FEEDLOTS may still be forced by GROUNDWATERS to obtain a wastewater permit. GROUNDWATERS were passed to protect Florida's groundwater beyond a zone of discharge. A zone of discharge is defined as an area of groundwater within which water quality standards are not enforced. For a dairy farm that does not need a wastewater permit under FEEDLOTS, the zone of discharge is the lesser of 100 feet from the source of pollution or the distance from the pollution source to the property boundary. Farming operations that threaten to violate groundwater standards at the zone of discharge boundary must be issued a permit under GROUNDWATERS.

## The Study

A 1995 study surveyed the impact of the total government regulatory environment on Florida dairy farmers. For purposes of the study, the regulatory environment included all government regulations that would apply to a Florida dairy farm. The dairy industry was selected because dairy products are important Florida commodities and because the industry's operations are geographically dispersed throughout the state. The dairy industry also has a relatively long history of government regulation as compared to other Florida agricultural industries.

### Procedure

The study was not designed to collect the detailed costs and benefits of each regulation to the farmer but instead to get a better understanding of the economic and sociological impacts of the regulatory climate on the farmer. Interviews were the primary method of data collection. The interview questions were designed to elicit interviewed farmers' responses, mainly in terms of costs and benefits, regarding the impacts of regulations. (The interview questions are listed in the appendix.)

Specific questions were asked about the costs and benefits of regulations related to various practices and activities of their dairy operations. Dairy farmers were asked to give their best assessment of the costs and benefits of government regulations on their farms. Since land, water, chemicals and labor are critical to the success of a dairy farming operation, several questions were asked about how the respondents assessed the impact of the regulations on these resources. Farmers were not asked to comment on regulatory agencies by name but to comment on their personal experiences with regulatory agencies as a whole.

The questionnaire was also designed to gain general information about the impact of the following four regulation cost categories: (1) direct expense (long- and short-term); (2) opportunity cost of the farmers' inability to perform farm activities or tasks because of time spent on compliance with government regulations; (3) cost of waiting or delay when the outcome (approval) is rather certain; and (4) cost of uncertainty related to the total regulatory environment facing the dairy farmer. Although these categories describe the real impacts facing the farmer, the study was not designed to obtain detailed costs for each category.

The focus of the study was the total impact of government regulations on the Florida dairy farmer. In contrast to other research that concentrates on a specific regulation, respondents were interviewed about the impact of the total government regulatory environment on their businesses. The extent to which each level of government regulates the farmer varies widely depending upon the type of regulation. For example, the cost and time required to obtain an environmental dairy operating permit are much greater than the requirements for passing milk or feed inspections.

As a result of limited funds, a relatively small number of farmers was interviewed. Since this is an exploratory study, it is considered desirable to involve respondents from various geographic regions of the state. An effort was made to select farmers who had dealt with regulatory agencies and who were operating above average-sized herds that were economically viable. County extension faculty from various regions of the state assisted in the selection of the sample.

farmers increased mechanization while 6 percent decreased mechanization, and 44 percent made no mechanization changes.

The impact of government regulation generally limited expansion in the size of dairy herds. Herd size increased because of regulations according to 11 percent of the farmers and decreased according to 25 percent of the farmers. As a result of regulations, the majority of the farmers (64 percent) said their herd size remained the same. Government regulations had a minor influence on the types of crops grown. The number of different crops grown increased according to 8 percent of the farmers but decreased according to 14 percent of the farmers. Most respondents (78 percent) said government regulations had no effect on the types of crops grown. Regulations, such as the waste disposal requirements, and resultant limitations may ultimately affect the types of crops produced.

Farmers were asked in what way, if any, government regulations had affected the value of their land. Seventy-two percent of the farmers thought government regulations had decreased the value of their land; 22 percent said regulations had had no effect on the value of their land; and 6 percent thought government regulations had increased the value of their land (figure 5). The county comprehensive land use plan and DEP permit requirements were the major causes cited for declining land prices. As a result of restrictions on land and water use, the plan limits the owner's use of the land.

About 40 percent of the respondents were required to have a DEP permit. In the case of producers who were not required to obtain DEP permits (grandfathered in), subsequent owners are required to obtain the permit. The future value of dairy farms without permits will decline because of the high costs involved in the permitting process. The cost of compliance with the DEP's permit requirement is the most expensive regulation for the dairy farm. This cost must be paid entirely by the dairy farmer, except for those farmers in the Okeechobee Drainage Basin. The major items that constitute the cost are permit application, legal costs, engineer design, equipment and construction. (It was not possible to obtain detailed records of the cost of each category.) The total cost of compliance is a multi-million dollar expenditure for larger farmers.

Farmers were asked how government regulations had affected their relationships with their lenders. According to 81 percent of the farmers (figure 6), government regulations had harmed these relationships. While none of the farmers said that government regulations had improved these relationships, 19 percent stated that regulations had had no effect on these relationships. The reasons cited for the erosion of relationships varied among farmers (figure 7). Of the farmers with damaged lending relationships, 79 percent attributed the situation to decreased land values that reduced their equity position. Environmental audit regulations were noted by 14 percent of the farmers to have damaged their relationships while 7 percent cited increased paperwork as the cause.

Farmers were asked what adjustments in their time spent on dairy operations had been made as a result of the time they had to allot for regulatory compliance. Response percentages are presented in figure 8. Seventy percent of the farmers said that they spent less time on production and marketing; 16 percent said they spent the same amount of time in production and marketing and had hired more people to deal with regulations; and 14 percent said they had continued their same operations by working longer hours.

## Summary

Florida dairy farmers are regulated by several agencies at various levels of the government. Many of the regulations are not dairy-specific but are based on broad legislation regarding land, water, chemicals and labor. A sample of farmers considered some of the government regulations to be good for the dairy farmer but thought some involved added costs and time.

Farmers ranked environmental regulations as the most important problem they faced, and they ranked the regulation of waste disposal as the most serious government regulation they encountered. In contrast, they considered milk inspection regulation to be good for their businesses because it ensures the public that milk is a safe product.

Government regulations were considered to have an important negative impact on land values by approximately three out of four of those surveyed. A large majority of the farmers reported that government regulations had negatively affected their relationships with their lenders; they attributed this situation to reduced equity caused by decreased land values. In order to comply with government regulations, most farmers increased their labor forces, and about 50 percent of the farmers increased mechanization. More than 60 percent of farmers did not change the size of their herds as a result of regulations.

Dairy farmers, on average, spent 22 percent of their work day on regulatory compliance activities. According to the interviewed farmers, total regulation of dairy farms had increased by an average of 132 percent during the previous five years.

The respondents made the following suggestions for improvements to the current regulatory system: (1) more flexibility and common sense in implementation of the rules; (2) less duplication by regulatory agencies; (3) more knowledgeable people to write and implement the rules; and (4) a need for more of an incentive approach and a more cooperative relationship with government agencies.



Figure 1. Problems faced by dairy farmers.

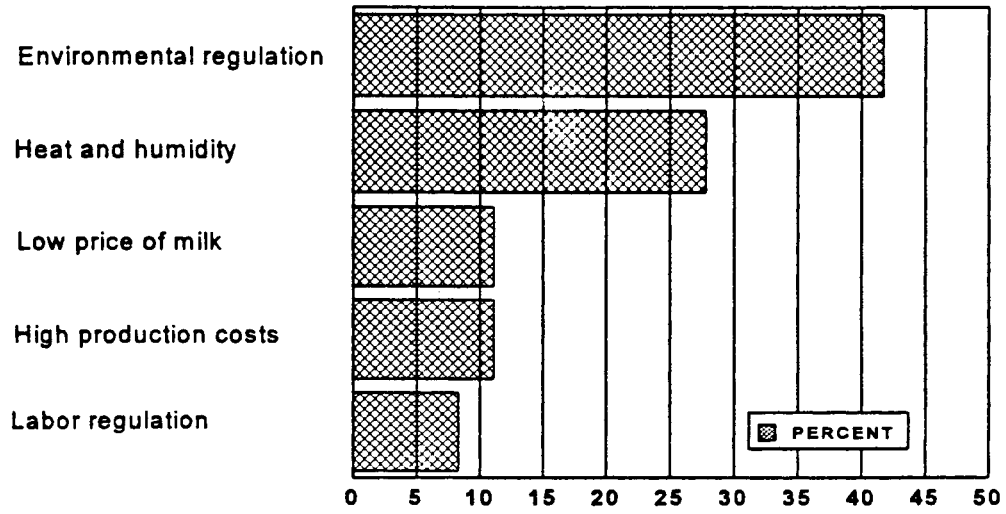
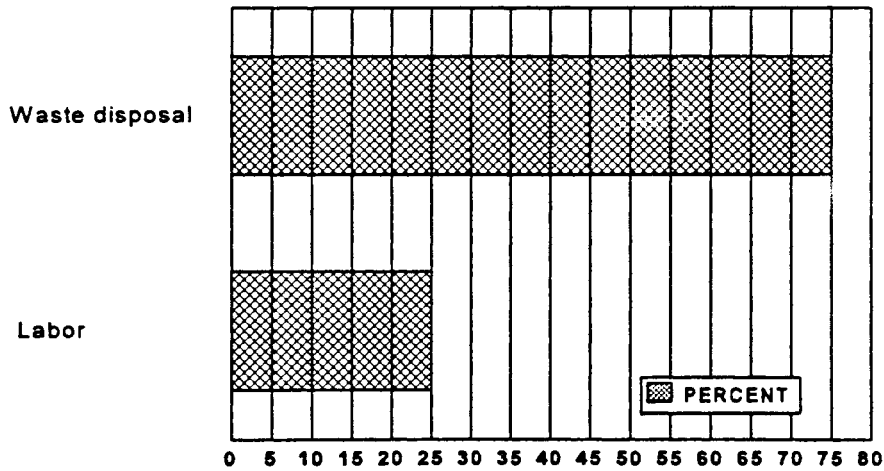
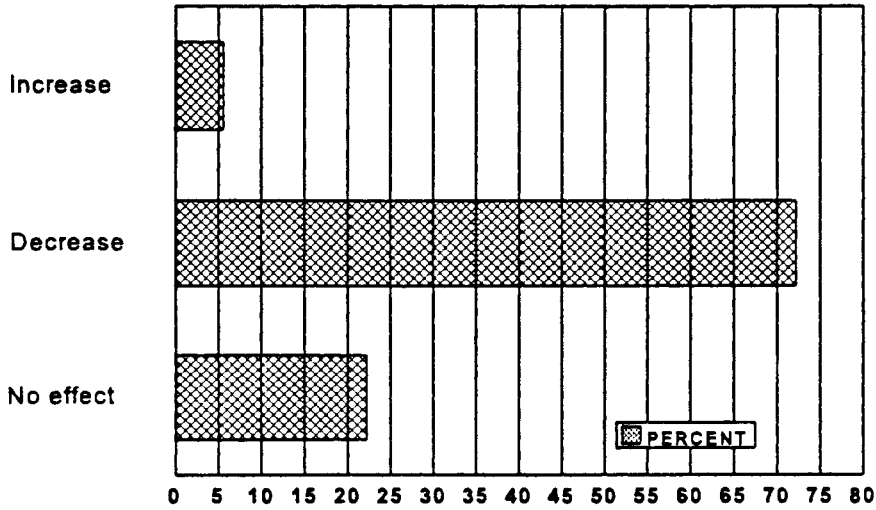


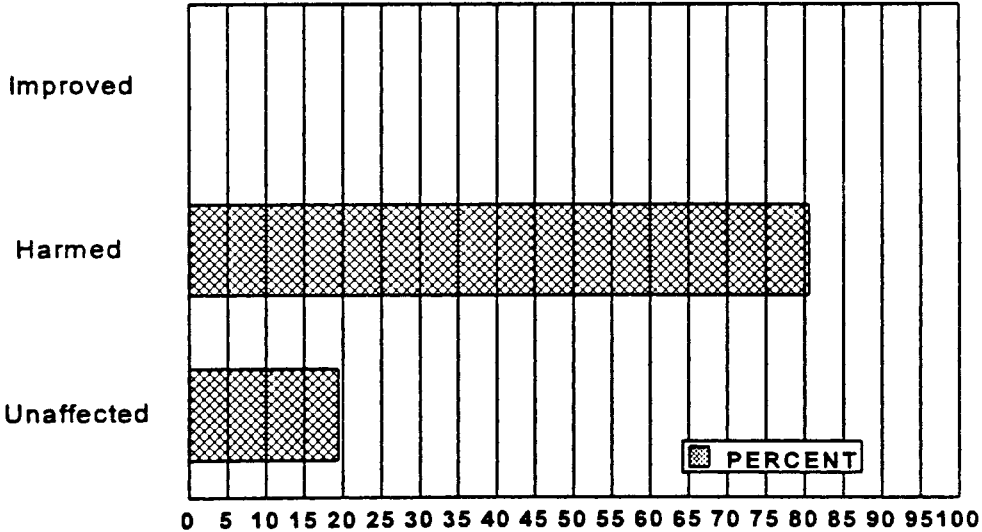
Figure 2. Activities of dairy operations most negatively impacted by government regulations.



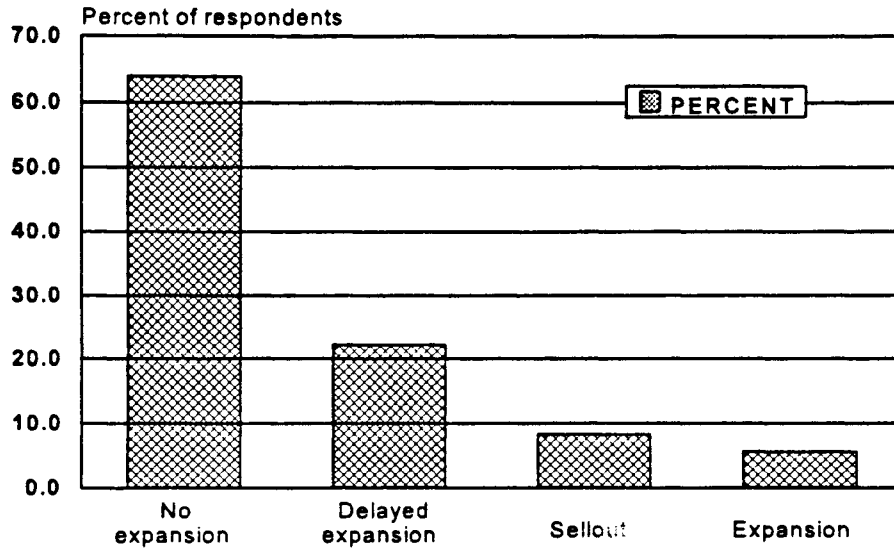
**Figure 5. Effects of government regulations on land values.**



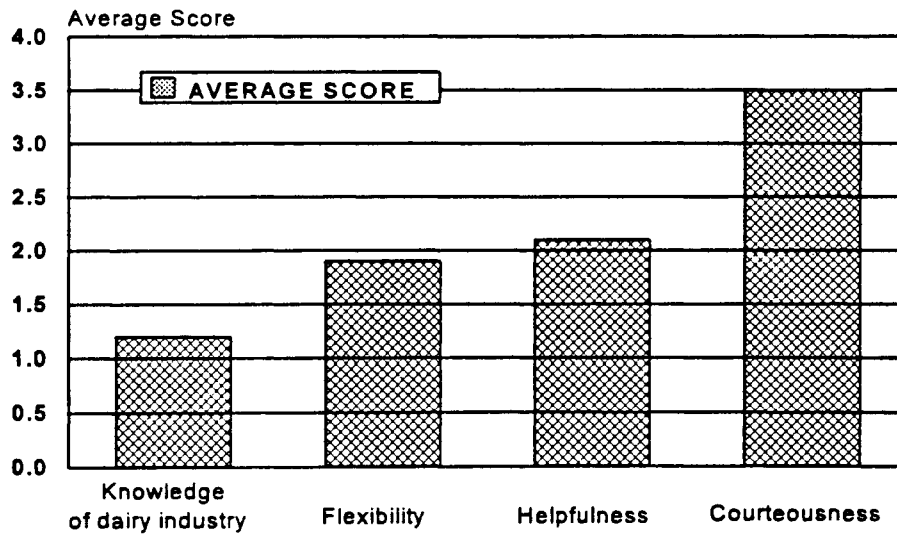
**Figure 6. Effects of government regulations on farmer/lender relationships.**



**Figure 9. Effects of government regulations on future plans for herd expansion.**



**Figure 10. Ratings on selected attributes of government regulatory officials.\***



\* A score of five is the highest level of the attribute, and a score of one is the lowest level.

## **Appendix**

# Impact of Government Regulations on Florida Dairy Farms

Food and Resource Economics Department  
Institute of Food and Agricultural Sciences  
University of Florida

## Commodity-Dairy

1. What is the size of your business?

Total number of cows \_\_\_\_\_

Number of replacement heifers \_\_\_\_\_

Average annual milk production per cow \_\_\_\_\_

2. How long have you been in dairy farming?

Number of years \_\_\_\_\_ From 19\_\_\_\_ to 19\_\_\_\_

3. In what county (or counties) is your farming business located?

(1) \_\_\_\_\_ (2) \_\_\_\_\_

4. What is the total acreage of your farming operation?

Acres owned \_\_\_\_\_

Acres rented \_\_\_\_\_

Other \_\_\_\_\_

Total acres \_\_\_\_\_

5. What is the most important problem facing your farming business?

\_\_\_\_\_  
\_\_\_\_\_

6. What activities of your dairy operation are most negatively impacted by government regulations?

\_\_\_\_\_  
\_\_\_\_\_

7. In what way, if any, has government regulation affected the value of your land?

Increased \_\_\_\_\_

Decreased \_\_\_\_\_

No effect \_\_\_\_\_

Why? \_\_\_\_\_



15. What adjustments in time spent on production and marketing practices have you made in order to allot the time needed for regulatory compliance in your dairy operation?

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16. What changes, if any, would you like to see with regard to the regulations affecting you?

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17. In your opinion, do the following categories adequately describe costs of regulations to your business?

(1) Direct cost (cost of permit)

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(2) Opportunity cost of your inability to perform farm activities or tasks because of the time you spend on regulatory compliance

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(3) Cost of waiting or delay when outcome (approval) is uncertain

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(4) Cost of uncertainty regarding government regulation

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