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Centralized fertigation and citrus organic farming. Agrosocial conflict and harmonization strategies in Valencia Region

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ARTICLE SECTION

Centralized fertigation and citrus organic farming. Agrosocial conflict and harmonization strategies in Valencia Region

Abstract: During the last three decades, the irrigation communities of the Valencian citrus area massively opted for the adoption of drip irrigation systems that incorporated centralized fertigation systems. This option has been a barrier to the growth of organic farming, given the impossibility of using the generic fertilizer introduced by the irrigation communities. This research, developed from semi-structured interviews and a focus group workshop, describes and analyses the evolution of the conflict between the irrigation communities that opted for centralized fertigation and the farmers that are dedicated to organic farming or non-citrus crops. We analyse the solutions developed on 5 irrigation communities in this region; the proposals made by the regional administration; and the institutional response of users and managers who have intervened in this conflict. The conclusions highlight a problem of invisibility of small producers of organic farming; highlight the concertation capacity of the collective irrigation management institutions; and identify a legal loophole in certain aspects of the regulation of the fertilization of irrigation water.

Key words: Irrigation modernization, organic farming, drip irrigation, fertilization, irrigation communities.

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IDEAS CLAVE / HIGHLIGHTS / IDEES CLAU

1. La fertirrigación centralizada es en muchos casos incompatible con la agricultura ecológica y el policultivo.
2. Los agricultores ecológicos, minoritarios, encuentran dificultades para preservar su opción productiva.
3. Muchas comunidades de regantes han puesto en marcha soluciones para compatibilizar fertirrigación centralizada y agricultura ecológica.
4. Las diferentes opciones de compatibilización tienen costos diferentes para usuarios convencionales y ecológicos.
5. Existe un claro vacío legal sobre las implicaciones de la fertirrigación colectiva.

1. Centralized fertigation is in many cases incompatible with organic farming and polyculture.
2. Organic farmers, a minority, find it difficult to preserve their productive option.
3. Many irrigation communities have implemented solutions to reconcile centralized fertigation and organic farming.
4. Different compatibility options have different costs for conventional and organic users.
5. There is a clear legal loophole on the implications of collective fertigation.

1. La fertirrigació centralitzada és en molts casos incompatible amb l'agricultura ecològica i el policultiu.
2. Els agricultors ecològics, minoritaris, troben dificultats per a preservar la seua opció productiva.
3. Moltes comunitats de regants han posat en marxa solucions per a compatibilitzar fertirrigació centralitzada i agricultura ecològica.
4. Les diferents opcions de compatibilització tenen costos diferents per a usuaris convencionals i ecològics.
5. Existeix un clar buit legal sobre les implicacions de la fertirrigació col·lectiva.

EXTENDED ABSTRACT¹

During the last three decades, the irrigation communities of the Valencian citrus area have opted massively for the adoption of drip irrigation systems that incorporated centralized fertigation systems. These systems had been adopted by numerous irrigation communities when installing their drip irrigation networks, in order to minimize the costs of purchasing and applying fertilizer. The injection of fertilizer in the collective networks generates an economic benefit that the technicians estimate at 2/3 of the cost of fertilization. For these and other economic advantages, the regional administration encouraged the incorporation of these systems in the irrigation communities. Centralized fertigation was stipulated as one of the requirements for preferential access to subsidies for irrigation modernization.

This option, chosen for reasons of cost and comfort, has been a barrier to the growth of organic farming, given the impossibility of using the generic fertilizer introduced by the irrigation entities. At the beginning of 2017, several news published in the regional press contributed to making visible a conflict that, for several years, had been brewing in many irrigation communities that had opted for centralized fertigation. The representatives of one of the main agrarian unions in the region, the *Unió de Llauradors*, denounced that the progress of ecological agriculture and polyculture was being slowed down in most of the citrus-growing areas due to the predominance of collective fertigation systems.

This work describes and analyses the evolution of the conflict generated between the communities of irrigators who opted for centralized fertigation and the farmers who are dedicated to organic farming or non-citrus crops. The work has been developed from semi-structured interviews with farmers and managers of five irrigation communities (Vila-real, Tollos, Serretilla, Sagunt, Acequia Real del Júcar) of different sizes, some representatives of the administration and of institutions and companies related to the sector. Additionally, a focus group workshop was held with in which 5 farmers from the organic production sector participated, a representative of the Organic Agriculture Committee of the Valencian Community (CAECV), a technician from the regional administration (Department of Agriculture, Rural Development, Climate Emergency and Ecological Transition, CADRECTE) and a representative of the agricultural union *La Unió de Llauradors*, also organic farmer.

The results collect the perspectives and aspirations of the users, analyse the solutions developed on the ground, and the measures proposed by the administration. Basically these solutions have materialized in two options: the establishment of separate connections and networks financed by the users, or the establishment of different irrigation turns alternating fertilized water and “clean” water. Both present an unequal distribution of burdens, risks and benefits between organic farmers and irrigation communities.

The technicians and managers of these irrigation communities found themselves in the position of seeking accommodation for the new practices in a rigid infrastructure, but at the same time they tried to avoid undermining the rights of the rest of the irrigators. Some have chosen to modify the organization of irrigation schedules and others to adjust the infrastructure. The distribution of costs of one and the other option is not well balanced. The modification of the infrastructure has been carried out generating new costs for organic farmers, who have had to finance new pipes or give up their practices. Meanwhile, in those communities in which it has been decided to modify the management of the

¹ Traducción exclusiva de los autores / Authors' exclusive translation.

resource through the introduction of “clean water” irrigation turns, there may be a more equitable distribution of costs. Traditional irrigators see their period of access to water slightly restricted, but organic farmers irrigate with some uncertainty about the quality of irrigation water, in the absence of controls to ensure that there are no effects due to the washing of pipes.

These dilemmas lead to another that has been pointed out by some irrigators interviewed and that also arose during the workshop. Do the irrigation communities have the right to impose the use of water with fertilizers or should these entities only serve to distribute the water they are legally entitled to distribute? These questions were not in the mind of the legislator when the 1985 Water Law and the subsequent Regulation of the Public Hydraulic Domain (RDPH) that establishes the powers of the irrigation entities were drafted. Fertigation remains in a legal loophole and the legislation is limited to regulating the allocation of water rights and their distribution through collective management institutions. It can be understood that the Water Law refers exclusively to water in the state in which it is found at the point of intake or extraction, and that therefore it cannot be intended to impose an additional load of nutrients that is inappropriate for certain crops. But from another point of view, the RDPH considers that the general assemblies are the sovereign body of the irrigation communities and that, consequently, the decisions adopted by a majority in said meetings are mandatory for all members of the irrigation entity. Consequently, this includes agreements that approve centralized fertigation. Without a sentence it is impossible to establish an interpretation of the law adjusted to this casuistry that establishes jurisprudence.

However, as we have seen, those affected by the problem do not want to assume the economic and social risks of this judicial route. Social pressure exists and in fact some farmers have been stigmatized for raising these claims that go against the majority feeling of the community. Taking these issues out of communities endowed with bodies for the resolution of internal conflicts is often equivalent to subverting the basic values of community life and generates greater tensions than the problems they aspire to solve, as has been highlighted in other institutions of community resource management.

In this sense, this work has detected the isolation and relative helplessness that some of the young farmers who have opted for the ecological route have felt. Hence the need to make a clean slate on the conflict and reinforce the few but effective initiatives for the coordination of actors. This is not the only condition, but it is necessary for the adoption of compatibility measures that are accessible to users (managers and farmers) and durable over time. Until the recent support of the CAECV and the Unió, these farmers have missed an organization specifically dedicated to the defense of their interests as a collective, and to date they have not achieved the leadership or the critical mass to be able to promote the creation of an organization of regional-scale producers. Nor have they reached a significant weight within the irrigation entities, a fact that has curtailed their progress in some communities, but has not been an obstacle for others to arbitrate conciliatory solutions to make the different fertilization techniques compatible and the interests of “new” and “old” irrigators.

For the regional administration, committed to organic farming since 2015, it is difficult to intervene beyond highly laudable actions such as the development of the technical guide to make these practices compatible with centralized fertigation. These are changes and adaptations that are less costly in economic terms, but that involve concertation efforts between the actors involved that are more costly in time. In addition, the administration has little experience and capabilities in this regard.

