Abstract
Property destruction has been a key part of the protest repertoire in Western Europe (and further afield) throughout history. Such acts have represented the physical manifestation of opposition to perceived inequalities in society, ranging from actions of groups such as the Luddites through to spontaneous food riots. Although these actions can be portrayed as unthinking and solely focused on destruction, it is important to consider underlying claim being made through the action. This paper draws on a catalogue of protest events to consider the wave of crop trashing that took place in the UK in the late 1990s and early 2000s. The aim is to locate these actions in the broader tradition of destruction targeting flora to determine the extent to which these actions can be seen as representing a traditional form of action and consider the degree of continuity in the underlying motives.

Keywords: crop trashing, protest event analysis, plant maiming, GM

Introduction
On 12 June 1998 ‘eco-protestors’ occupied a field near Edinburgh and uprooted a field of experimental genetically modified (GM) oil-seed rape (Arthur, 1998). This action came at a time when opinion polls showed significant opposition to the introduction of genetically modified crops (Woolf, 1998). The event was significant as it was the first case of crop trashing in the UK that appears in the print media and was followed the next month by a similar action in Devon, although in that case the protestors mistakenly uprooted non-GM maize (Gibbs, 1998). Property destruction in this form has been a key part of the protest repertoire in Western Europe throughout history. Examining plant maiming in England between 1750 and 1850 Griffin (2008a: 44) identifies the general motivations as ‘opposition to enclosure (and enclosers), opposition to penny-pinching farmers and vestrymen, or

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individuals apparently out of personal pique and revenge.’ The contemporary actions taken against GM crops should therefore be viewed in relation to the earlier practices, providing a means of presenting claims and disrupting production deemed as harmful to accepted norms. The confrontational nature of the actions also meant that they would receive coverage in the media and generate support from others opposed to the new technology. Alongside these actions, opponents to GM practices also engaged in more conventional forms of opposition, such as marches and demonstrations (Doherty and Hayes, 2012) and the use of formal institutional channels (Reynolds, 2013).

The novelty of the wave of crop destruction in the UK during the 1990s and early 2000s was presented as being significant, particularly in a social and political environment of increased control and governance of private actions. Despite this framing, the destruction of property and even flora has a long history in the UK (see Griffin, 2008a; Thompson, 1991; Tilly, 2005). Tilly (2008) has argued that rather than being spontaneous outbursts, destructive acts were driven by the desire to seek redress for perceived injustices. This built on E.P. Thompson’s (2013) notion of the moral economy, whereby members of society have certain expectations of the state. The apparent parallels lead to questions regarding the similarities between the periods of protest (see also Calhoun, 1993). The willingness to take part in covert and possibly illegal actions presents a threat to the individual in the form of prosecution by the state. In the absence of institutions to channel frustrations the motivations for individuals to act will be enhanced by the actions of others through processes of diffusion (Weyland, 2014).

This paper considers the wave of crop trashing that took place in the UK in the late 1990s and early 2000s. The aim is to locate these actions in the broader tradition of destruction targeting flora to determine the extent to which these actions can be seen as representing a traditional form of action (see also O’Brien, 2012a). Although much has changed in the intervening period it is argued that there are similarities that need to be considered and can be reflected in notions of tradition. In order to do this the paper considers the degree of continuity in the underlying motives and form between the periods and also the actions of the authorities attempting to limit such actions. The remainder of the paper has three sections. The first section provides an overview of historical forms of property destruction and their motivations, placing attacks on flora into this broader context. Following this the paper outlines the methodology used to gather information on protest events. In the third section the
focus turns to contemporary crop trashing events before comparing the motivations with historical patterns of protest.

**Unearthing Historical Forms of Destruction**

The destruction or damage of plants and trees has a long history in the UK as a form of protest (see Griffin, 2008a and 2008b). These actions were relatively common during the eighteenth and nineteenth centuries as a form of resistance to changes in land use practices and access through the enclosure of commons and the loss of traditional rights. McDonagh and Daniels (2012: 109) capture the nature of this change noting that:

> Enclosure under Parliamentary Act brought an end to the communal management of the open fields, extinguishing common rights and allocating discrete portions of land to individual landowners as private property.

The significance of the practice of enclosure was that it represented a direct challenge to the traditional social norms and arguably the moral economy of the wider community. Although McDonagh and Daniels (2012) note that the exclusion was not absolute and the boundaries were permeable, the intent and perception of exclusion and the enforcement of status through ownership was apparent.

Actions to privatise and assert ownership over what was once held in common was one form of tension among many during this period. As E. P. Thompson (1971) argued in his classic article, there was a sense in which there was an obligation for society to ensure the livelihood of those within the community. Thompson documented this through analysis of a range of different forms of protest and behaviour, with food riots being one of the more identifiable manifestations. These periodic actions saw members of the community seize and sometimes destroy food, block transportation in times of shortage, and force the sale of goods at a price that was deemed fair (1971; see also Tilly, 2008). In addition to protests around food, there were also periodic waves of protest targeting new technologies. One of the most iconic, if generally not well understood, is Luddism in Lancashire (Griffin, 2014; Thompson, 2013). Destructive actions were undertaken to break machines that were costing jobs and upsetting the traditional balance within the community. This form of protest was carried out covertly to protect the perpetrators, but the use of threatening letters suggests that there was also an attempt to develop a sense of collective threat under the leadership of the mythical General Ned Ludd (Thompson, 2013). It is within this wider context that we need to consider the historical acts of plant maiming.
The wilful and deliberate damage or destruction of plants and trees can be seen as a direct physical representation of social discontent. Griffin (2008b: 93) argues that such activity ‘speaks loudly about the everyday processes of social change and dislocation under the stresses of rapid economic change and the intensification of agricultural production.’ Although such actions were viewed as seemingly random they represented this wider division and discomfort. The connection to changing patterns was also seen in hedge-breaking following acts of enclosure, where hedges were ‘dug up...burnt and buried’ (McDonagh and Daniels, 2012: 113). Plant maiming of this nature was often symbolic, but was most effective when it caused financial as well as psychological damage to the target (Griffin, 2008a). Trees and plants take time to regrow and recover, making the financial impact readily apparent and also leaving a visible impact. The covert and apparently indiscriminate nature of many of the actions had the potential to induce uncertainty and fear of attack.

Specific manifestations of action against flora in this manner took a variety of forms. Griffin (2008a: 37) has identified four categories of action ‘attacks on growing crops; attacks on hop gardens; attacks upon orchards; and, finally, attacks on plantations and woodlands.’ Within these broad categories actions were taken to target trees where they were ‘cut to shreds, barked and even pulled up by the roots’ (Griffin, 2008a: 35), and in other cases fields were ploughed up and livestock were released onto crops (McDonagh and Daniels, 2012). The nature of these actions and the costs of getting caught (capital in the case of cutting hop binds (Griffin, 2008a)) meant that the actions had to be carried out covertly. In order to maintain the secrecy of those involved actions were largely carried out by lone individuals or small groups with strong bonds of trust (Griffin, 2008b). The decision to target flora is also significant as it meant that acts of physical violence were not targeted against individuals, something that may alienate potential supporters and undermine the message. This did not mean that individuals were not the intended victim of the attack, as letters to those targeted sometimes called on them to change their ways (in an echo of the Luddite actions) (Griffin, 2008a).

The limited overall scale of tree and plant maiming meant that it remained relatively marginal in contrast to other forms of action in pursuit of redress. At this distance the targets and reasons for their selection appear obscure, but they did speak to the concerns of the respective community. Actions against trees (and animals (see Griffin, 2012)) accompanied other efforts
to fight acts of enclosure and land use change through legal channels (McDonagh and Daniels, 2012). The fact that these direct actions had the (implicit) support of the wider community is represented in the limited number of perpetrators brought to court and found guilty in jury trials (Griffin, 2008a). Another demonstration of wider acceptance is noted by McDonagh and Daniels (2012: 114) in 1765 where a newspaper advertisement called for participants in a game of football, the assembled group proceeded to break up and burn the fences. It is therefore important to see tree and plant maiming as part of a broader set of actions to resist change and reassert rights to traditional practices.

Methodology
The research in this paper draws on an original dataset of protest events targeting genetic modification in the United Kingdom between 1982 and 2014. This form of collecting data is known as protest event analysis and allows for the examination of patterns of behaviour over time (Koopmans and Rucht, 2002). There are limitations in relying on newspapers for source material, editorial decisions and commercial imperatives mean that not all events are covered. However, as Earl et al (2004) argue, the use of newspaper stories provides a useful snapshot of events that occur over a period of time. Newspapers are also useful in the subject of this study as they reflect the interests of wider society and can reflect attitudes towards the object of interest, protest actions targeting GM crops. The decision to rely on newspaper sources is also in line with the purpose of protest actions, as Lipsky (1968: 1151) argued, ‘Like a tree falling unheard in the forest, there is no protest unless protest is perceived and projected.’

The search strategy electronic archives of major national newspapers in the United Kingdom between January 1982 and December 2014 (the full extent of availability) utilised to identify protest events. Strawn (2010) has shown that searching electronic archives is a useful way of identifying protest events, provided consideration is given to the search protocol. The newspapers included in the search for this paper were: Daily Telegraph, Guardian, Independent, Independent on Sunday, Observer, Sunday Telegraph, Sunday Times, and Times. A search of these papers was run for all stories containing the terms ‘protest*’ and ‘genetic*’ and either of ‘modifi*’ or ‘engineer*’. The search returned 1440 stories, with 66 distinct events (with some events being covered by more than one source) being identified after a manual reading of each story. Information on each event recorded included details on: date, location, setting, level, issue, action forms, numbers involved, named organisations, police presence and arrests, and a brief description.
Placing Contemporary Crop Trashing in Perspective

Acts of crop trashing targeting GM field trials proliferated during the late 1990s and early 2000s as the state determined how to manage both the new technology and public concerns. The introduction of new technologies that have the potential to reshape the way in which food is produced and where uncertainty over longer term effects creates significant complications for states. Cocklin et al (2008: 162) argue that:

- governments have two alternative pathways... One is to facilitate research in, and the development of, GMOs, reaping the claimed benefit of high yield, disease resistant crops. The other strategy would acknowledge the widespread consumer resistance, take a precautionary approach to the risks, and promote a ‘clean and green’ food and fibre system.

Although these options are presented as alternative pathways, the authors note that most governments will seek to meet both aims. The desire of the state to reap the perceived economic benefits of GM has tended result in a situation where the solutions that result satisfy neither those in opposition to development and those seeking full commercialisation leading Kearnes et al (2006: 291) to argue that ‘the [UK’s] agricultural GM experience represents a warning, a cautionary tale of how not to assess an emerging technology and allay public concern.’

Against the obvious public concern over GM technologies the UK government attempted to find ways to move ahead with development and potential commercialisation. Considering the GM Nation? consultation and concurrent scientific enquiry into the commercialisation of four varieties of herbicide resistant crops that took place in 2003, Reynolds (2013: 470) has argued the ‘GM controversy revealed how the scientific and the political are entwined, but, at the same time, how powerful forces constantly attempt to deny this and to purify the world (and its publics) into separate realms.’ The scientific uncertainty surrounding the release of GM crops meant that supporters attempted to frame it as an apolitical, technical issue. Acts of crop trashing-trashing and wider forms of protest can be seen as an attempt to re-establish the political nature of the decision to proceed in the face of uncertainty. To challenge this interpretation the trashing of crops and other forms of opposition were presented as a form of Luddism (Whipple, 2012) in the sense of opposition to progress, rather than as a genuine expression of concern by the community. These contending views present the background against which we need to consider contemporary acts of crop trashing and also seek to illuminate parallels with historical forms of plant and tree maiming outlined above.
The number of crop trashing actions over the 1996-2014 period appears to be relatively low, totalling just 29. As noted above, this figure is likely to undercount the number of actual events due to the reliance on newspaper stories and the associated editorial decisions. Figure 1 shows that crop trashing made up well over a third (29 events) of all protest events over genetic modification (66 events) identified in the media sources examined. There were also attempts at large scale overt crop trashing that were stopped by the police, these have been coded as protests rather than acts of crop trashing. Looking at the trend over time it is clear that the period leading up to and immediately after the government consultation and decision on regulation saw the most intense activity. This is to be expected given the aim of those engaging in protest to influence those in authority responsible for making decisions. Following the government decision the number of direct actions and wider protests dropped, as the restrictions limited the planting of field trials and also led to planned trials being abandoned (see for example Lean, 2004).

**Figure 1** Protest Actions against Genetic Modification – Total and Crop Trashing

In order to consider the relationship between historical acts of plant and tree maiming outlined above with the contemporary actions of crop trashers it is necessary to consider the form and motivation. As with historical acts the majority of crop trashing took place covertly (19 events) and involved actors attempting to infiltrate and leaving without notice. In contrast
with the earlier actions around a third (10 events) of the actions took place in the open, reflecting a change in the environment in which they were operating. Actions that took place overtly also differed from those conducted in secret by incorporating other recognisable protest tactics, such as costumes, banners, and speeches. An example of this form of action took place in Yeovil, Somerset in July 2000 where 180 protesters gathered, including individuals dressed as the grim reaper. A number of those present then invaded the field and damaged a GM maize trial leading to seven arrests (Times, 2000). Despite the potential personal costs, the adoption of overt tactics is important in generating wider solidarity and demonstrating commitment (see Seifert, 2013).

The motivations of crop trashers were much more readily apparent in the contemporary protests. As noted above, historical actions tended to be more localised and focused against individuals seen as breaching the will of the community, sometimes with a link to wider issues such as enclosure. Those that took place against GM were more clearly targeting national and sometimes international concerns. Overt actions demonstrated this most clearly by aligning with or creating organisations to build a profile and generate wider understanding and support for their claims. Those acts that took place at night and in secret were more closely tied to the traditional forms, although they also made more use of symbols to express their claims, such as tearing a giant ‘X’ in a field (Arthur, 1998) or acting on threats issued (Collins, 2012). As Plows et al (2004) found, actions such as crop trashing were seen as linked to the wider movement against GM technology. However, they also identified divisions over whether such actions should be overt, thereby allowing for accountability for actions taken.

As with the historical protests the state attempted to punish protesters who undertook such direct action. The number of arrests varied considerably from single individuals through to 43 at a protest near Spital in the Street, Lincolnshire in July 1999 that involved flags and decontamination suits, but mistakenly tore up non-GM maize (Daniels, 1999). Although there are 227 arrests recorded in the catalogue, very few are recorded as resulting in guilty verdicts. In celebration over the acquittal by magistrates of the seven arrested in Yeovil in July 2000 crops were pulled up in Weymouth in July 2001 (Vidal, 2001). As with the introduction of the Black Acts (Griffin, 2008a) attempts were made to increase penalties for crop trash with connections being drawn to the powers given to police to deal with animal rights protesters (Grice, 2008). In spite of these attempts the ability of the prosecuting authorities to
secure guilty verdicts with significant deterrent effects was much lower than that of the authorities in France (see Doherty and Hayes, 2014).

The actions involving crop trashing also need to be seen in the context of a wider campaign against GM food. In conjunction with these contentious forms of direct action, protest actions were also staged involving dumping GM crops at company headquarters (Hickman, 2012), planting on the lawns of company executives (Beaumont, 1996) as well as more conventional actions involving marches through London (Sunday Times, 1999) and a large anti-GM picnic involving celebrities (Guardian, 1999). Whereas the population distribution during the period of crop maiming and hedge-breaking covered above was largely rural with close ties to the land, contemporary protesters are overwhelmingly urban in background. Considering the use of rural areas in contemporary protest actions, Reed (2008) argues that changes in social and governance structures combined with availability of technology have made rural areas more able to be enrolled in protest actions. This is particularly visible in the case of opposition to GM crops, as large spaces of open land are required to run the field trials.

The similarities between historical and contemporary forms of plant maiming have been set out above. However, it is necessary to note how the overall pattern has changed between the two periods. The record of contemporary events suggests that crop trashing is focused on a particular identifiable target. Although the catalogue focuses on a protests targeting GM and therefore does not capture other protest targets, a brief examination of the literature suggests that crop trashing is not present in other protests in the UK. Examples from other countries suggest that the adoption and form of crop destruction depends very much on the weight of history and tradition. Seijo (2005) argues that the use of fire by Galician peasants to express opposition to Spanish forest management policies draws on deeper rituals of resistance. Examining the diffusion of open field destruction targeting GM crops from France to Spain and Germany, Seifert (2013) argues that while the adoption of new forms of action is possible, these are conditioned by the social context in the receiving society. In New Zealand, a culture much closer to that of the UK, O’Brien (2012b) found that crop trashing was also focused on GM crops, but occurred on a much smaller scale, reflecting the small number of targets but also potentially reflecting the importance of agriculture to economic progress. These differences reinforce the idea that such actions are a function of availability and acceptability to the community, with the more effective actions linking to recognisable forms of contention where these breach and attempt to disrupt what is considered normal.
Conclusion

Tradition and history both play important roles in shaping and orienting society. In line with this idea, the paper has argued that close observation of the past can be a useful guide for the present. Through an examination of contemporary protest actions involving the damaging of GM field trial it has been possible to identify parallels with practices of plant and tree maiming in the eighteenth and nineteenth centuries. Historical forms of protest resulted from perceived violations of community rights and sought to raise these claims using available tools. Thompson’s concept of the moral economy is important in this regard, capturing the feeling that the state should protect these rights. Although the notion of the moral economy has less purchase in the contemporary period, actions involving crop trashing hark back to protection from exclusionary practices. The introduction of GM crops as a non-reversible process could therefore be seen to echo earlier processes of enclosure and the concerns they engendered.

Perhaps the most significant tie between the two eras is in the exercise of power. Acts of resistance against enclosure and changes in agricultural production practices that reduced employment opportunities and access often sought to directly challenge those in power. The relatively small number of successful prosecutions against the perpetrators suggested broader community support or at least recognition of the claim being made. The contemporary equivalent may be the notion that society should have a say in the introduction of new technologies that may reshape existing patterns of social order. The increased reliance on technical justification of decisions in the face of societal demands can be seen as entrenching power relations. From this perspective crop trashing may be viewed as an attempt to bring to light this challenge and call for wider consideration.

Despite the commonalities between the two eras there are also significant differences in the social, political and economic structures. In the specific area of crop trashing, greater openness and opportunities for participation leads to modification in the form of overt actions. However, history still has a guiding role, as covert actions remained the most numerous and more common form than in countries with harsher punishments for actions of this nature. The result reinforces the importance of looking to history and tradition to fully understand contemporary developments and practices.
Arthur (1998) states that the attack in Scotland was the 21st targeting GM crops in 1998. A search of the newspaper archives does not record any earlier crop trashing actions, making this the first to be recorded in the catalogue. See Methodology section for details on data collection method.

Although it is noted that the ability of the UK is conditioned by its membership of the EU, it is argued that there is still a degree of freedom in how the state chooses to engage with the new technology, something that has been enhanced over time (see Randour et al, 2014).

Stories examined made reference to larger number of actions, but as these were not covered in detail and referred to in bulk they have been excluded from consideration. Their inclusion would distort the overall picture and lead to an underrepresentation of protests that did not involve crop trashing.

The early 2000s were an important time for governments deciding how to manage the emerging GM technology. In 2003 the New Zealand government lifted a moratorium on field trials, despite strong public opinion in favour of an extension (see O'Brien, 2012b).

Tilly and Wood (2009) argue that protest actions rely on a combination of worthiness, unity, numbers and commitment or WUNC to enhance their impact. Covert forms of action lack the numbers, but likely possess worthiness, unity and commitment due to the desire to maintain secrecy and protect the actors involved.
References:


November.


