

# Crop Insurance Considerations for Non-Operating Land Owners in the Face of Extreme Weather

Ellen Essman, Drake University Agricultural Law Center

September 2014

Research supported by the Leopold Center for Sustainable Agriculture and part of the  
Sustainable Agriculture Land Tenure Initiative

[www.sustainablefarmlease.org](http://www.sustainablefarmlease.org)

Farmers have a number of tools to use in managing agricultural risk. This summary examines the relationship between one of those tools—crop insurance—and extreme climatic events.

First, the Agricultural Act of 2014, commonly known as the 2014 Farm Bill, introduced several institutional risk management tools that can be used by producers. One program is called Agricultural Risk Coverage, or ARC.<sup>1</sup> ARC takes two forms, County ARC and Individual ARC.<sup>2</sup> For County ARC, farmers receive payments when the revenue of a covered crop is less than the county guarantee for that crop.<sup>3</sup> With Individual ARC, farmers receive payments when the sum of all revenues from the crops covered by the program on their farm turns out to be less than the ARC guarantees for each of those crops.<sup>4</sup> Another tool is called Price Loss Coverage, or PLC.<sup>5</sup> If farmers choose to use PLC, they receive payments when the price they receive for a covered commodity is below a reference price created by federal statute.<sup>6</sup> ARC or PLC can be used in addition to crop insurance, but ARC and PLC cannot necessarily be used together.<sup>7</sup> Producers “must make a one-time, unanimous election of: (1) PLC/County ARC...or (2) Individual ARC.”<sup>8</sup> If the producer chooses the first option, they must also make an ultimate decision about which of their base acres will be enrolled in PLC and which will be in County ARC.<sup>9</sup>

---

<sup>1</sup> *Agricultural Risk Coverage (ARC)*, UNITED STATES DEPARTMENT OF AGRICULTURE FARM SERVICE AGENCY, <http://www.fsa.usda.gov/FSA/fbapp?area=home&subject=fmsn&topic=arc> (last visited Sept. 22 2014).

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

There are also a few tools available to assist farmers in special circumstances. Congress approves disaster payments from time to time when emergencies arise that cause especially low yields.<sup>10</sup> Additionally, there are specific disaster programs for loss of livestock forage due to drought or fire, livestock deaths due to weather or wild animal attacks, for losses of livestock, honeybees, and farm-raised fish and for fruit trees damaged by natural disasters.<sup>11</sup> There are also programs to help dairy farmers, non-insured farmers, and cotton and sugar producers.<sup>12</sup> The 2014 Farm Bill eliminated the Direct and Counter-Cyclical Payment program.

Another risk management tool that continues to be available to producers is crop insurance. There are a multitude of different plans offered both by the federal government and by private insurers. The USDA's Risk Management Agency offers insurance policies for over 100 crops.<sup>13</sup> Insurance plans offered by the government include: Actual Production History (APH), Actual Revenue History (ARH), Adjusted Gross Revenue (AGR), Area Risk Protection Insurance (ARPI), Group Risk Plan (GRP), Group Risk Income Protection (GRIP), Livestock policies, Rainfall Index (RI), Revenue Protection, and Yield Protection, to name a few.<sup>14</sup> For an explanation of each of these types of insurance, visit <http://www.rma.usda.gov/policies/>. Collectively, these policies offered through the Federal Crop Insurance Corporation (FCIC) are

---

<sup>10</sup> *Government Programs & Risk*, UNITED STATES DEPARTMENT OF AGRICULTURE ECONOMIC RESEARCH SERVICE, <http://www.ers.usda.gov/topics/farm-practices-management/risk-management/government-programs-risk.aspx#.VA9wIJRdURz> (last visited Sept. 22 2014).

<sup>11</sup> *What's in the 2014 Farm Bill for Farm Service Customers?*, UNITED STATES DEPARTMENT OF AGRICULTURE FARM SERVICE AGENCY, [http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=pfs&newstype=prfactsheet&type=detail&item=pf\\_20140311\\_insup\\_en\\_fbil.html](http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=pfs&newstype=prfactsheet&type=detail&item=pf_20140311_insup_en_fbil.html) (March 2014).

<sup>12</sup> *Id.*

<sup>13</sup> *Policies*, UNITED STATES DEPARTMENT OF AGRICULTURE RISK MANAGEMENT AGENCY, <http://www.rma.usda.gov/policies/> (last visited Sept. 22, 2014).

<sup>14</sup> *Id.*

often referred to as Multi-Peril Crop Insurance (MPCI).<sup>15</sup> Certain private insurance companies are authorized by FCIC sell the federal MPCI plans to producers.<sup>16</sup> MPCI policies are purchased before any crops are planted.<sup>17</sup> Private insurance companies also offer other policies that are not available through FCIC, including crop-hail policies, which cover losses due to hail and can be purchased after planting has taken place.<sup>18</sup> There are many different crop insurance options for producers to choose from offered both by the federal government and private insurers. The types of policies available could depend on what is being raised and what part of the country the producer is raising their product in.

While it seems as though the actual crop producers are those most likely to participate in crop insurance, there are some instances where it makes sense for landlords to participate as well. The USDA lists the different crop insurance plans that are made available through the federal government on its website, and most every description of a plan mentions producers without any mention of landowners.<sup>19</sup> Although the USDA fails to mention landowners in regard to crop insurance, this does not mean that certain landowners are not eligible. Depending on the type of lease that exists between a landlord and tenant, it might make a lot of sense for landowners to share in the costs and benefits of crop insurance.

There are several different types of farm leases that can occur between a landlord and tenant, including a fixed cash lease, flexible cash lease, crop-share lease, and a custom farming

---

<sup>15</sup> *The Basics of Crop Insurance*, PROAG, <http://www.proag.com/basics-of-crop-insurance> (last visited Sept. 22, 2014).

<sup>16</sup> *Id.*

<sup>17</sup> *How it Works*, NATIONAL CROP INSURANCE SERVICES, <http://www.cropinsuranceinamerica.org/about-crop-insurance/how-it-works/> (last visited Sept. 22 2014).

<sup>18</sup> *Id.*

<sup>19</sup> *See Policies*, UNITED STATES DEPARTMENT OF AGRICULTURE RISK MANAGEMENT AGENCY, <http://www.rma.usda.gov/policies/> (last visited Sept. 22, 2014).

contract.<sup>20</sup> In a fixed cash lease, the tenant pays the landlord an agreed-upon amount per acre.<sup>21</sup>

A flexible cash lease or flex-lease is similar to a fixed cash lease, but the amount the tenant pays in rent is dependent on the crop yields and the price of crops.<sup>22</sup> In a crop-share lease, the landowner and tenant split the crops in an agreed-upon percentage instead of the tenant paying rent to the landowner.<sup>23</sup> Finally, in a custom farming contract, the tenant provides all of the labor and uses their equipment in return for a fixed payment per acre from the landowner.<sup>24</sup> The landowner receives all the crop income.<sup>25</sup>

If the landowner shares the risk in the crop, then they qualify for crop insurance.<sup>26</sup> As a result, landowners with flex-leases and crop share leases could obtain crop insurance, but landowner with a fixed-cash lease could not, since the rent they collect is not dependent on the crop. An article from Iowa State Extension suggests that landowners should incorporate crop insurance payments into the gross revenue that is used to calculate rent in a flex-lease while also sharing in the cost of crop insurance by deducting the premiums from the gross revenue.<sup>27</sup>

According to the University of Maryland Extension, in the case of a fixed cash lease, the tenant should obtain insurance and receive the benefits, while with a crop share lease, the landlord and tenant would “split the cost” (and benefits) of “crop insurance coverage based on the percentage

---

<sup>20</sup> Kevin Leibold, *Improving Your Farm Lease Contract*, IOWA STATE UNIVERSITY, <http://www.extension.iastate.edu/agdm/wholefarm/html/c2-01.html> (July 2014).

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

<sup>23</sup> *Id.*

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> *Crop Insurance for land owners? How do you do that?*, FARMGATEBLOG.COM, <http://www.farmgateblog.com/article/1700/crop-insurance-for-land-owners-how-do-you-do-that> (Nov. 13, 2013).

<sup>27</sup> Kevin Leibold, *Improving Your Farm Lease Contract*, IOWA STATE UNIVERSITY, <http://www.extension.iastate.edu/agdm/wholefarm/html/c2-01.html> (July 2014).

of crop owned by each party.”<sup>28</sup> For a custom farming contract, the University of Maryland Extension suggests that the landowner insure the entire crop.<sup>29</sup> In conclusion, while landowners may not necessarily be the targeted audience for federal crop insurance, it makes sense for landowners who share in the production risk to obtain crop insurance, or to share in the costs and benefits of crop insurance through their lease agreement.

While crop insurance is an important tool for producers and some landowners, research shows that crop insurance can be detrimental to long-term productivity and sustainability of land since it encourages risk-taking. According to the Natural Resources Defense Council (NRDC), the Risk Management Agency (RMA), which runs the Federal Crop Insurance Program (FCIP), uses a formula that “attracts high-risk producers,” and “structure of ...[FCIP] incentivizes production choices that damage natural resources and increase risk of crop loss.”<sup>30</sup> FCIP rates are based on loss cost ratemaking, which “relies only on historical data...[and] depends on a constant relationship between yield and indemnities in order to remain actuarially fair; if either insured value or risk of loss...changes more quickly than the other, loss cost ratemaking will set inaccurate premiums.”<sup>31</sup> Therefore, the formula “attracts high-risk farmers and discourages low-risk farmers.”<sup>32</sup> NRDC says that FCIP “encourage[s] farmers to make *riskier* choices, such as planting crops on fields that are not well suited to agricultural production, because farmers who do so pay disproportionately lower premium rates compared with farmers who make risk-reducing management decisions,” which, as a result, leads to increased erosion and chemical

---

<sup>28</sup> PAUL GOERINGER, AGRICULTURAL LEASING IN MARYLAND, at 13 (University of Maryland Extension Jan. 2013), available at <https://extension.umd.edu/grainmarketing/lease-agreements>.

<sup>29</sup> *Id.* at 13.

<sup>30</sup> CLAIR O’CONNOR, SOIL MATTERS, at 6 (Natural Resources Defense Council), available at <http://www.nrdc.org/water/soil-matters/files/soil-matters-ip.pdf> (Aug. 2013).

<sup>31</sup> *Id.* at 7.

<sup>32</sup> *Id.* at 7 (citing Cory G. Walters, et al., *Crop Insurance, Land Allocation, and the Environment*, J. OF AGRIC. & RESOURCE ECON. 37/2:301-320 (2012)).

inputs.<sup>33</sup> The Environmental Working Group also reports that there is a strong link between counties in the United States that are “hotspots” for converting wetlands and highly erodible soils to cropland and the counties with the “highest average payouts from crop insurance.”<sup>34</sup>

What is more, several studies point to the fact that crop insurance does not benefit more sustainable, diversified farms—on the contrary, it hinders these farms. For example, in North Carolina, farming has shifted from commodity crops like tobacco to diversified farms that raise fruits, vegetables, livestock and Christmas trees.<sup>35</sup> Since these diversified crops are less predictable than commodity crops, they are harder for the federal government to create risk programs for.<sup>36</sup> In 2005, only 28% of farm income in North Carolina came from crops that fell under the FCIP.<sup>37</sup> The Institute for Agriculture and Trade Policy agrees with this assertion, saying: “[t]he majority of crop and revenue insurance policies, however, are skewed in favor of less diverse farming systems because they make it difficult to insure a mixture of crops or integrated crop and livestock operations.”<sup>38</sup> Additionally, crop insurance, up until 2014, may

---

<sup>33</sup> *Id.* at 7 (citing Robert McLeman and Barry Smit, *Vulnerability to Climate Change Hazards and Risks: Crop and Flood Insurance*, THE CAN. GEOGRAPHER 50:217 (2006); JunJie Wu, *Crop Insurance, Acreage Decisions, and Nonpoint- Source Pollution*, AM. J. OF AGRIC. ECON. 81:305 (1999); cf. Barry K. Goodwin, et al., *An Empirical Analysis of Acreage Effects of Participation in the Federal Crop Insurance Program*, AM. J. OF AGRIC. ECON. 86:1058 (2004), and Cory G. Walters, et al., *Crop Insurance, Land Allocation, and the Environment*, J. OF AGRIC. & RESOURCE ECON. 37/2:301-320 (2012); see Ruiqing Miao, et al., *LAND USE CONSEQUENCES OF CROP INSURANCE SUBSIDIES*, selected paper prepared for presentation at the Agricultural & Applied Economics Association’s AAEA & NAREA Joint Annual Meeting, Pittsburgh, Pennsylvania, July 24-26, 2011.)

<sup>34</sup> Craig Cox, *Going, Going Gone!*, ENVIRONMENTAL WORKING GROUP (JULY 23, 2013), <http://www.ewg.org/research/going-going-gone>.

<sup>35</sup> SCOTT MARLOW, *DISASTER PROGRAMS AND THE CHANGING FACE OF AGRICULTURE IN NORTH CAROLINA*, 8 (RAFI-USA) (Dec. 17, 2011) available at <http://rafiusa.org/blog/disaster-programs-and-the-changing-face-of-agriculture-in-north-carolina/>.

<sup>36</sup> *Id.* at 8.

<sup>37</sup> *Id.* at 29.

<sup>38</sup> Jim Kleinschmit, *A Risky Proposition*, INSTITUTE FOR AGRICULTURE AND TRADE POLICY (Nov. 15, 2011), <http://www.iatp.org/documents/a-risky-proposition>.

have dissuaded producers from adopting more environmentally-friendly organic farming, because organic farmers were “required to pay an arbitrary five percent premium surcharge on any policy,” and if they had a loss, they were “reimbursed at conventional prices, which are typically lower than organic prices.”<sup>39</sup> Diversification of farming practices has been found to benefit sustainability and long-term productivity,<sup>40</sup> but, as the above groups show, crop insurance hinders farmers’ ability to diversify. If crop insurance encourages tenant-farmers to take more risks, which in turn increase wetland and soil loss, and discourages them from taking a more diversified or sustainable approach to farming, their use of the land in the short term may compromise the long-term productivity of the owner’s land.

While one might think that the agricultural sector could learn about climate change mitigation and green incentives from the non-agricultural insurance industry, it turns out the insurance industry has done some, but not much, to address the climate change problem. Groups like Risk Management Solutions have developed computer modeling for insurance companies that predicts outcomes of natural disasters.<sup>41</sup> Another step was made when Farmers Insurance Co. sued the City of Chicago for the claims it paid when the area flooded and the City’s sanitation system failed, or in other words, for Chicago’s failure to address the effects of climate change.<sup>42</sup> Other

---

<sup>39</sup> *Id.*

<sup>40</sup> See WALTHALL, C.L. ET AL. CLIMATE CHANGE AND AGRICULTURE IN THE UNITED STATES: EFFECTS AND ADAPTATION 6 (USDA 2012), *available at* [http://www.usda.gov/oce/climate\\_change/effects\\_2012/CC%20and%20Agriculture%20Report%20%2802-04-2013%29b.pdf](http://www.usda.gov/oce/climate_change/effects_2012/CC%20and%20Agriculture%20Report%20%2802-04-2013%29b.pdf).

<sup>41</sup> Joseph Stromberg, *How the Insurance Industry is Dealing with Climate Change*, SMITHSONIAN.COM (Sept. 24, 2013), <http://www.smithsonianmag.com/science-nature/how-the-insurance-industry-is-dealing-with-climate-change-52218/?no-ist>.

<sup>42</sup> Eugene Linden, *How the Insurance Industry Sees Climate Change*, LOS ANGELES TIMES (June 16, 2014), <http://www.latimes.com/opinion/op-ed/la-oe-linden-insurance-climate-change-20140617-story.html>; Ken Silverstein, *Rift Widening Between Energy and Insurance Industries Over Climate Change*, FORBES (May 18, 2014),



companies have broken ties with and have stopped financially supporting climate deniers like the Heartland Institute.<sup>43</sup> In California, New York, and Washington, state insurance commissioners require insurance companies to publically disclose how they are combatting climate change.<sup>44</sup> Insurance companies formed ClimateWise in 2007 “in order to reduce economic risk associated with climate change,” and insurance and reinsurance companies have testified to Congress about the risks the industry will face due to climate change, and incentives Congress can approve to combat the problem.<sup>45</sup> The Hartford insurance company has started its own “green” practices, such as allowing employees to work remotely to cut down on driving, having areas to charge electric vehicles at its buildings, and providing a discount to policyholders driving hybrid and electric cars.<sup>46</sup> Some home insurers provide customers discounts for having LEED certified roofs, and some car insurers provide discounts for using alternative fuels or even offer pay-as-you-drive policies.<sup>47</sup> Finally, insurers have left areas like Florida when state regulators would

---

<http://www.forbes.com/sites/kensilverstein/2014/05/18/rift-widening-between-energy-and-insurance-industries-over-climate-change/>.

<sup>43</sup> Ken Silverstein, *Rift Widening Between Energy and Insurance Industries Over Climate Change*, FORBES (May 18, 2014), <http://www.forbes.com/sites/kensilverstein/2014/05/18/rift-widening-between-energy-and-insurance-industries-over-climate-change/>.

<sup>44</sup> Ben Schiller, *Insurance Companies Face Increased Risks from Warming*, YALE ENVIRONMENT 360 (Apr. 23, 2012), [http://e360.yale.edu/feature/insurance\\_companies\\_face\\_increased\\_risks\\_from\\_warming/2519/](http://e360.yale.edu/feature/insurance_companies_face_increased_risks_from_warming/2519/).

<sup>45</sup> Jules Boykoff, *Why the Insurance Industry Gets Climate Change*, THE GUARDIAN ((June 28, 2011), <http://www.theguardian.com/commentisfree/cifamerica/2011/jun/28/climate-change-climate-change-scepticism>; Mark Drajem, *Insurance Industry, Republicans Split on Climate Change*, BLOOMBERG (July 18, 2013), <http://www.bloomberg.com/news/2013-07-18/insurance-industry-republicans-split-on-climate-change.html>.

<sup>46</sup> Arthur Murry, *Climate Change and the Insurance Industry* TRIPLE PUNDIT (Nov. 29, 2013), [http://www.triplepundit.com/2013/11/climate-change-insurance-industry/?doing\\_wp\\_cron=1411250260.4017651081085205078125](http://www.triplepundit.com/2013/11/climate-change-insurance-industry/?doing_wp_cron=1411250260.4017651081085205078125).

<sup>47</sup> *Id.*

not allow them to raise prices to deal with “risks created by a rapidly growing population in harm’s way.”<sup>48</sup>

Many, however, would argue that the insurance industry’s response to climate change has not gone far enough or that it has been largely symbolic. In the U.S., some feel that the insurance industry has not done enough to advocate for carbon taxes.<sup>49</sup> Merely 23 of 184 insurance companies surveyed had a “comprehensive strategy to deal with climate change.”<sup>50</sup> European insurance companies have lobbied their governments to mitigate climate change, while American companies have mainly concentrated on how to adapt to climate change.<sup>51</sup> Furthermore, U.S. companies focus mainly on hurricanes, when billions of dollars of losses result from tornadoes, thunderstorms, and hail.<sup>52</sup> Finally, many large U.S. insurers have a shortage of “in-house scientific expertise.”<sup>53</sup> As a result, while the crop insurance industry might have a few tricks to learn from the larger insurance industry, there still seems to be a lack of motivation on the part of U.S. insurance companies to fight climate change.

---

<sup>48</sup> Eugene Linden, *How the Insurance Industry Sees Climate Change*, LOS ANGELES TIMES (June 16, 2014), <http://www.latimes.com/opinion/op-ed/la-oe-linden-insurance-climate-change-20140617-story.html>.

<sup>49</sup> Eduardo Porter, *For Insurers, No Doubts on Climate Change*, NEW YORK TIMES (May 14, 2013), [http://www.nytimes.com/2013/05/15/business/insurers-stray-from-the-conservative-line-on-climate-change.html?pagewanted=all&\\_r=3&](http://www.nytimes.com/2013/05/15/business/insurers-stray-from-the-conservative-line-on-climate-change.html?pagewanted=all&_r=3&).

<sup>50</sup> Ken Silverstein, *Rift Widening Between Energy and Insurance Industries Over Climate Change*, FORBES (May 18, 2014), <http://www.forbes.com/sites/kensilverstein/2014/05/18/rift-widening-between-energy-and-insurance-industries-over-climate-change/>.

<sup>51</sup> Jules Boykoff, *Why the Insurance Industry Gets Climate Change*, THE GUARDIAN ((June 28, 2011), <http://www.theguardian.com/commentisfree/cifamerica/2011/jun/28/climate-change-climate-change-scepticism>.

<sup>52</sup> John Wihbey, *Limited Coverage: Climate Change and the Insurance Industry*, YALE CLIMATE CONNECTION (June 6, 2012), <http://www.yaleclimateconnections.org/2012/06/limited-coverage-climate-change-and-the-insurance-industry/>.

<sup>53</sup> *Id.*

There have been recent changes in crop insurance to incentivize sustainability. The 2014 Farm Bill connects crop insurance to conservation compliance.<sup>54</sup> As a result, producers can only obtain premium subsidies from crop insurance if they comply with conservation requirements for both wetlands and highly erodible land.<sup>55</sup> The Farm Bill also forces producers farming in areas of Iowa, Minnesota, Montana, Nebraska, North Dakota, and South Dakota pay more for crop insurance if they convert native sod to cropland.<sup>56</sup> In relation to organic crops, the Farm Bill changed the value of crop insurance “to reflect the generally higher prices of organic crops.”<sup>57</sup> Additionally, the Farm Bill requires the USDA to research how to insure livestock producers and producers of non-traditional crops, as well as to research how to provide higher coverage through whole-farm revenue insurance.<sup>58</sup>

Some feel that the crop insurance additions to the Farm Bill do not adequately address the problem of climate change and extreme climatic events. The National Sustainable Agriculture Coalition (NSAC), for example, had hoped that the “Sodsaver provision” of the Farm Bill would cover the entire country instead of just Iowa, Minnesota, Montana, Nebraska, and the Dakotas.<sup>59</sup> NSAC found problematic that the Farm Bill “grandfathers in producers” who converted wetlands before the bill was passed.<sup>60</sup> NSAC also felt that the Farm Bill did not do enough to fund

---

<sup>54</sup> Jonathan Coppess, *Conservation Compliance and Crop Insurance in the New Farm Bill*, DEPARTMENT OF AGRICULTURAL AND CONSUMER ECONOMICS UNIVERSITY OF ILLINOIS (May 2, 2014), <http://farmdocdaily.illinois.edu/2014/05/conservation-compliance-and-crop-insurance-in-farm-bill.html>.

<sup>55</sup> DENNIS A. SHIELDS, CONG. RESEARCH SERV., R43494, CROP INSURANCE PROVISIONS IN THE 2014 FARM BILL 10 (2014).

<sup>56</sup> *Id.* at 10.

<sup>57</sup> *Id.* at Summary.

<sup>58</sup> *Id.* at Summary.

<sup>59</sup> *2014 Farm Bill Drill Down: Conservation—Crop Insurance Linkages*, NATIONAL SUSTAINABLE AGRICULTURE COALITION (Feb. 10, 2014), <http://sustainableagriculture.net/blog/2014-farmbill-hel-wetlands/>.

<sup>60</sup> *Id.*

enforcement of conservation and that the language was vague and could create loopholes to compliance.<sup>61</sup> Moreover, the new Farm Bill removed direct payments,<sup>62</sup> the federal assistance payments that were previously tied to highly erodible land and wetland conservation.<sup>63</sup> The removal of direct payments is problematic because, as the USDA reported in 2012, these payments account for about half of the producer payments linked to compliance.<sup>64</sup> Furthermore, the replacement of direct payments with crop insurance as a conservation tool is troubling since “[m]ost environmentally sensitive land tends to be located in areas where crop insurance subsidies are smaller than direct payments.”<sup>65</sup> Finally, in the same USDA report, research showed that eliminating direct payments and instead connecting crop insurance to compliance would bring some farms into compliance that had not been before, but overall, would result in “fewer farms and fewer acres” that would be subject to compliance.<sup>66</sup>

A number of groups suggest practices that can reduce risk of loss from extreme climatic events—practices that could be tied to crop insurance in the future. NSAC cited the USDA in saying that the government should incentivize farmers to adapt by “diversifying crop rotations, integrating livestock with crop production systems, improving soil quality, [and] minimizing off-farm flow of nutrients and pesticides,” practices which “may increase the capacity of the agricultural system to minimize the effects of climate change on productivity.”<sup>67</sup> NRDC

---

<sup>61</sup> *Id.*

<sup>62</sup> Bruce Knight, *2014 Farm Bill Conservation Compliance*, AGRIPULSE (2013), [http://www.agripulse.com/Knight\\_Opinion-Farm\\_Bill\\_Conservation\\_Compliance\\_02122014.asp](http://www.agripulse.com/Knight_Opinion-Farm_Bill_Conservation_Compliance_02122014.asp).

<sup>63</sup> ROGER CLAASSEN THE FUTURE OF ENVIRONMENTAL COMPLIANCE INCENTIVES IN U.S. AGRICULTURE Abstract (USDA March 2012).

<sup>64</sup> *Id.* at iii.

<sup>65</sup> *Id.* at iv.

<sup>66</sup> *Id.* at 11.

<sup>67</sup> *USDA Climate Report Misses Sustainable Systems*, NATIONAL SUSTAINABLE AGRICULTURE COALITION (Aug. 1, 2014), <http://sustainableagriculture.net/blog/usda-ghg-report/> (citing WALTHALL, C.L. ET AL. CLIMATE CHANGE AND AGRICULTURE IN THE UNITED STATES: EFFECTS

suggests linking crop insurance to no-till farming, cover cropping, and efficient use of irrigation.<sup>68</sup> These practices, along with crop rotations, have a great potential to mitigate “extreme weather-related crop loss.”<sup>69</sup> Linking the implementation of buffer strips to crop insurance could lessen pesticide runoff in our waterways, prevent soil erosion, and reduce flooding downstream from farms.<sup>70</sup> The Natural Resources Conservation Service (NCRS) recommends using contour farming—“farming with row patterns that run nearly level around the hill” instead of “up and down the hill,” and contour stripcropping, which “is crop rotation and contouring combined in equal-width strips of corn or soybeans planted on the contour and alternated with strips of oats, grasses, or legumes” to reduce soil erosion.<sup>71</sup> As long ago as 1938, the USDA endorsed strip cropping, leaving crop residue after harvest, and the use of terraces and strips or buffers of trees and grass to retain moisture and prevent erosion.<sup>72</sup> If these practices were joined with crop insurance eligibility, the risk of loss from extreme weather events could be reduced even more.

There are some impediments to linking these practices to crop insurance, but none that cannot be overcome. In general, it is always easier to stick with the status quo, and for the most

---

AND ADAPTATION (USDA 2012), *available at* [http://www.usda.gov/oce/climate\\_change/effects\\_2012/CC%20and%20Agriculture%20Report%20%2802-04-2013%29b.pdf](http://www.usda.gov/oce/climate_change/effects_2012/CC%20and%20Agriculture%20Report%20%2802-04-2013%29b.pdf).

<sup>68</sup> CLAIR O’CONNOR, SOIL MATTERS, at 7 (Natural Resources Defense Council), *available at* <http://www.nrdc.org/water/soil-matters/files/soil-matters-ip.pdf> (Aug. 2013).

<sup>69</sup> *Crop Insurance Proposal to Lower Premiums for Good Stewardship*, NATIONAL SUSTAINABLE AGRICULTURE COALITION (Aug. 29, 2013), <http://sustainableagriculture.net/blog/crop-insurance-and-conservation/>.

<sup>70</sup> *Conservation Buffers*, CONSERVATION TECHNOLOGY INFORMATION CENTER (2014), <http://www.ctic.purdue.edu/Core4/Conservation%20Buffers/>.

<sup>71</sup> *Contour Farming*, NATURAL RESOURCES CONSERVATION SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE, [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/nj/technical/cp/?cid=nrcs141p2\\_018675](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/nj/technical/cp/?cid=nrcs141p2_018675) (last visited Sept. 22 2014).

<sup>72</sup> WALTER V. KELL, STRIP CROPPING FOR SOIL CONSERVATION at 6, 7, 8, 12 (USDA 1938).

part, the alternative practices listed above have not been connected to crop insurance payments on a federal level. Another problem is lack of funding. NSAC points out that there is currently “insufficient funding for investigation and enforcement of conservation requirements,” and adding more programs to crop insurance would likely only exacerbate the problem.<sup>73</sup> Similarly, past conservation compliance programs not tied to crop insurance have suffered from “lack of resources, training, and guidance; de-emphasis on compliance relative to other work; and a reluctance to assume an enforcement role.”<sup>74</sup> There are also a number of voluntary conservation programs that adopt some of the alternatives listed above—so the government may be reluctant to basically make these programs mandatory by connecting them to crop insurance.<sup>75</sup> Lastly, the private companies that provide federal crop insurance to producers have little incentive to “avoid losses from extreme weather events” by “encourag[ing] farmers” to implement the alternative practices listed above because their losses are subsidized by the federal government.<sup>76</sup> Overall, the main impediment seems to be a lack of political willpower.

Given all the discussion on crop insurance, its recent changes, and its potential to harm long-term sustainability, landowners might want to know what type of crop insurance their tenants have. As was discussed previously, crop insurance as a whole tends to encourage more risk and less diversification on the farm. Therefore, if an owner’s plan for the land is for it to sustain a

---

<sup>73</sup> *2014 Farm Bill Drill Down: Conservation—Crop Insurance Linkages*, NATIONAL SUSTAINABLE AGRICULTURE COALITION (Feb. 10, 2014), <http://sustainableagriculture.net/blog/2014-farmbill-hel-wetlands/>.

<sup>74</sup> MEGAN STUBBS, CONG. RESEARCH SERV., R42459, CONSERVATION COMPLIANCE AND U.S. FARM POLICY 10 (2012).

<sup>75</sup> *See Incentive Programs and Assistance for Producers*, UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICES, <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/climatechange/resources/?cid=stelprdb1043608> (last visited Sept. 22, 2014).

<sup>76</sup> Sarah Jane Keller, *Why the Farm Bill’s Crop Insurance is a Missed Opportunity for Reducing Climate Risk*, HIGH COUNTRY NEWS (Oct. 30, 2013), <https://www.hcn.org/blogs/goat/why-the-farm-bill-is-missed-opportunity-for-reducing-climate-risk>.

diversified farm in order to adapt to climate change and encourage sustainability, then the landowner might want to know whether their tenant has crop insurance, and they might want to include the plan for their farm in the lease so that crop insurance does not encourage the tenant not to diversify. The same could be said if the landowner knows their land is particularly susceptible to erosion, has wetlands, etc.—the owner would want to know whether the tenant has crop insurance or intends to obtain it. The landowner might also want to know whether the tenant’s crop insurance policy covers prevented planting. Late planting or re-planting may affect soil quality and erosion potential. What is more, with prevented planting, if the tenant holds an insurance policy and decides not to plant the crop at all, a cover crop may be planted, but forage crops cannot.<sup>77</sup> The landowner would want to know about the policy and its preventive planting provisions so that they could include how they would want a potential cover crop, re-planting, or late planting to be handled in their lease agreement.

In addition to knowing about the tenant’s crop insurance coverage and potentially including that in the lease, there are other lease provisions that can help landowners protect their land from extreme climatic events. The provisions may depend on what kind of lease is created. For instance, in a fixed cash lease, the landowner has a great amount of control—from what types of crops can be planted to what tillage and conservation, and pesticide practices the tenant will use.<sup>78</sup> Other provisions, like the removal of the corn stover, maintaining soil fertility, agreeing who will pay for improvements such as buffers and wetlands can be helpful in protecting land.<sup>79</sup> Writing a longer-term lease may create more of an incentive for the tenant to take care of the

---

<sup>77</sup> Alejandro Plastina, *Delayed and Prevented Planting Provisions*, IOWA STATE UNIVERSITY, <http://www.extension.iastate.edu/agdm/crops/html/a1-57.html> (last visited Sept. 22, 2014).

<sup>78</sup> Kevin Leibold, *Improving Your Farm Lease Contract*, IOWA STATE UNIVERSITY, <http://www.extension.iastate.edu/agdm/wholefarm/html/c2-01.html> (July 2014).

<sup>79</sup> *Id.*

land.<sup>80</sup> The landowner could also add an entire conservation addendum to their farm lease that could include maintaining minimum levels of organic matter in soil, specific tillage practices, and maintenance of conservation practices like buffer strips and terraces.<sup>81</sup> The lease can include provisions that limit the types of crops and production methods, livestock numbers, and can dictate the “timing or frequency of applications of fertilizers, herbicides, or pesticides.”<sup>82</sup> The lease can also simply require “‘generally accepted agricultural practices’ or NRCS best management practices.”<sup>83</sup> When it comes to land-protecting provisions, the options available to landowners are numerous.

Finally, there are also lease provisions that can help mitigate the effects of climate change on farmland. A provision to use bio-fuels in the farm operation will reduce the amount of greenhouse gases put off by the operation because it is displacing the transportation, production, and processing of traditional fuels.<sup>84</sup> Provisions can be included that require the planting of trees or perennials to act as carbon sinks.<sup>85</sup> Cutting back on tillage, having a grazing rotation, and implementing organic farming can similarly act as carbon sinks by increasing the carbon content

---

<sup>80</sup> *Id.*

<sup>81</sup> Jason Johnson, *Add Conservation Addendum to Farm Lease*, NATURAL RESOURCES CONSERVATION SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE, <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ia/newsroom/features/?cid=stelprdb1186383> (last visited Sept. 22, 2014).

<sup>82</sup> A LANDOWNER’S GUIDE TO LEASING LAND FOR FARMING, at 17 (Non-farming Landowner Taskforce), *available at* [http://www.thegreenhorns.net/wp-content/files\\_mf/1344531092landownersguide.pdf](http://www.thegreenhorns.net/wp-content/files_mf/1344531092landownersguide.pdf)

<sup>83</sup> *Id.* at 32.

<sup>84</sup> *IPCC Fourth Assessment Report: Climate Change 2007: 8.4.1 Mitigation technologies and practices*, Intergovernmental Panel on Climate Change (2007)

[http://www.ipcc.ch/publications\\_and\\_data/ar4/wg3/en/ch8s8-4.html](http://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch8s8-4.html).

<sup>85</sup> *Id.*



in the soil.<sup>86</sup> Other mitigation strategies include “improved cropland and grazing land management, restoration of degraded lands,” changing from traditional land use to agro-forestry, “improved nutrition” for livestock, and “better management of manure.”<sup>87</sup> Provisions to reduce the amount of nitrogen fertilizers, which release “the most potent greenhouse gas,” by composting, using manure, and crop rotations can also be included.<sup>88</sup> All of these strategies and more to mitigate climate change could be written into land leases.

Risk in agriculture is managed by a number of management tools, including crop insurance. Crop insurance can encourage risk-taking to the detriment of long-term productivity or sustainability of farmland. Although crop insurance has recently been tied to some conservation compliance programs, there is definitely room to link more practices that address extreme climatic events to crop insurance. While waiting for congress or crop insurance providers to act on this front, landowners can take matters into their own hands to protect their land from extreme climatic events and help mitigate the effects of climate change by including any number of provisions in their leases with tenant farmers.

---

<sup>86</sup> Claire Schaffnit-Chatterjee, MITIGATING CLIMATE CHANGE THROUGH AGRICULTURE, 1 (Deutsche Bank Report 2011).

<sup>87</sup> *Agriculture and Climate Change: Impacts, Mitigation, and Adaptation*, THE ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, <http://www.oecd.org/tad/sustainable-agriculture/agricultureandclimatechangeimpactsmitigationandadaptation.htm> (last visited Sept. 22, 2014).

<sup>88</sup> Claire Schaffnit-Chatterjee, MITIGATING CLIMATE CHANGE THROUGH AGRICULTURE, 10-11 (Deutsche Bank Report 2011).