								Last		
								Progress	Reporting Period of	
Accession Number	Project Number	Title	Department	Project Director	Funding Source	Project Start Date	Project End Date	Report FY	Performance	Project Status
		Onsite Wastewater Treatment	Tr.		0					.,
		Systems: Assessing the Impact of								
		Climate Variability and Climate			HATCH/MULTI-					
1009015	KY006094	Change	Plant and Soil Sciences	Lee, Brad	STATE	12/15/2015	09/30/2020	2019	2019-10-01 - 2020-09-30	Active
		The cytokinin signaling mechanism		,		, , , , ,	,,			
1009329	KY006095	and plant growth	Plant and Soil Sciences	Smalle, Jan	HATCH	07/01/2016	09/30/2020	2019	2019-10-01 - 2020-09-30	Active
		Effects of fungal endophyte symbiosis		,		, ,	, ,			
		on tall fescue pasture nutrient								
		dynamics and resilience to climate								
1010357	KY006096	change	Plant and Soil Sciences	McCulley, Rebecca	HATCH	10/01/2016	09/20/2021	2019	2019-10-01 - 2020-09-30	Active
		Effect of coatings on the behavior of								
		manufactured zinc oxide								
		nanoparticles in soil and zinc								
1010358	KY006097	bioavailability to plants	Plant and Soil Sciences	Unrine, Jason	HATCH	10/01/2016	09/30/2021	2019	2019-10-01 - 2020-09-30	Active
		Enhancing Wheat Breeding Through				,,	22, 23, 222			
		Selection for Resilience to Climate								
1010736	KY006098	Change	Plant and Soil Sciences	Van Sanford, David	НАТСН	10/01/2016	09/30/2021	2019	2019-10-01 - 2020-09-30	Active
1010730	K1000038	Evaluation of soybean varieties for	riant and son sciences	van samora, bavia	TIPATELL	10/01/2010	03/30/2021	2013	2013 10 01 2020 03 30	Active
10113/11	KY006099	use in Kentucky	Plant and Soil Sciences	Pfeiffer, T	НАТСН	10/28/2016	09/30/2021	2010	2019-10-01 - 2020-09-30	Active
1011341	K1000033	Performance of Small Grain Varieties	Flatit and 30th sciences	Fielilei, i	HATCH	10/28/2010	03/30/2021	2015	2019-10-01 - 2020-09-30	Active
1011634	KY006100	in Kentucky	Plant and Soil Sciences	Van Sanford, David	HATCH	12/22/2016	00/20/2021	2010	2019-10-01 - 2020-09-30	Activo
1011024	K1000100		Plant and Son Sciences	Vali Saliloru, Daviu	патсп	12/22/2016	09/30/2021	2019	2019-10-01 - 2020-09-30	Active
		Genetics and biochemistry of								
		phosphate solubilization by				10/10/0010	00/00/000			
1011681	KY006101	rhizosphere-dwelling microbes	Plant and Soil Sciences	Moe, Luke	HATCH	12/12/2016	09/30/2021	2018	2018-10-01 - 2019-09-30	Active
		Ecophysiology of soybean yield and								
		water use efficiency-experimental		Salmeron Cortasa,						
1011780	KY006103	and modeling approaches	Plant and Soil Sciences	Montserrat	HATCH	01/03/2017	09/30/2021	2018	2018-10-01 - 2019-09-30	Active
		Mechanisms of gene regulation								
1013409	KY006104	during plant embryogenesis	Plant and Soil Sciences	Perry, S	HATCH	10/01/2017	09/30/2022	2019	2019-10-01 - 2020-09-30	Active
		Impact of global warming on timing of								
		seedling emergence in summer								
1013862	KY006105	annuals	Plant and Soil Sciences	Baskin, C	HATCH	10/01/2017	09/30/2022	2019	2019-10-01 - 2020-09-30	Active
		A key to unlocking the seed size and								
		number dilemma: a new approach to								
1014280	KY006106	make bigger seeds for better yield	Plant and Soil Sciences	Kawashima, Tomokazu	HATCH	10/01/2017	09/30/2022	2019	2019-10-01 - 2020-09-30	Active
		Genetic and molecular basis of								
1017837	KY006107	symbiotic specificity in Medicago	Plant and Soil Sciences	Zhu, Hongyan	HATCH	10/01/2018	09/30/2022	2019	2019-10-01 - 2020-09-30	Active
		Improving Forage and Bioenergy								
		Crops for Better Adaptation,			HATCH/MULTI-					
1016185	KY006108	Resilience, and Flexibility	Plant and Soil Sciences	Phillips, T	STATE	05/18/2018	01/10/2022	2019	2019-10-01 - 2020-09-30	Active
1010103			r iante and son sciences			05/10/2010	01/10/2022			
		An integrated modeling framework to								
		understand and predict								
		agroecosystem response to climate-								
l		smart agriculture management in the								
1017020	KY006109	_	Dlant and Cail Caianges	Don Woi	HATCH	10/23/2018	09/30/2022	2010	2019-10-01 - 2020-09-30	Activo
101/838	K1000103	Conterminous U.S.	Plant and Soil Sciences	Ren, Wei	HATCH	10/23/2018	05/30/2022	2019	2013-10-01 - 2020-03-30	Active
		Integrated marestail management for								
4047070	KV006110	corn and soybean production in	Dlant and Call Calanas	Unananaha Edi	HATCH	10/05/2012	00/20/2022	2012	2010 10 01 2020 00 22	A -+i
101/873	KY006110	Kentucky	Plant and Soil Sciences	Haramoto, Erin	HATCH	10/05/2018	09/30/2023	2019	2019-10-01 - 2020-09-30	ACTIVE
		to the state of the state of								1
		Industrial Hemp Production,			HATCH/MULTI-			95:-		l
1018313	KY006112	Processing, and Marketing in the U.S.	Plant and Soil Sciences	Pearce, B	STATE	11/08/2018	09/30/2023	2019	2019-10-01 - 2020-09-30	Active
		Plant Genetic Resources Conservation			HATCH/MULTI-					1
1018559	KY006113	and Utilization	Plant and Soil Sciences	Phillips, T	STATE	12/21/2018	09/30/2023	2019	2019-10-01 - 2020-09-30	Active

## AD-421 Progress Report Checklist Plant and Soil Sciences 10/14/2020

	Genetic improvement of soybeans, chia and hemp seed for Kentucky							
1018774 KY006114	agriculture	Plant and Soil Sciences	Hildebrand, D	HATCH	02/21/2019	09/30/2023	2019-02-21 - 2019-09-30 A	Activ
	Enhancing nitrogen utilization in corn							
	based cropping systems to increase							
	yield, improve profitability and			HATCH/MULTI-				
1019079 KY006115	minimize environmental impacts	Plant and Soil Sciences	Poffenbarger, Hanna	STATE	03/22/2019	09/30/2021	2019 2019-10-01 - 2020-09-30 A	Activ
	Diameter and the second advanced and second							
	Plant root trait-based phenotyping in							
4020724 10/006447	support of sustainable agronomic	District Collection	AA N D	LIATOU	40/04/2040	00/20/2024	2040 40 04 2020 00 20 4	
1020734 KY006117	crop production	Plant and Soil Sciences	McNear, David	HATCH	10/01/2019	09/30/2024	2019-10-01 - 2020-09-30 A	ACTIV
4020040 10/000440	Messenger RNA 3' end formation in	District Collection		TC!!	40/40/2040	00/20/2024	2040 40 40 2020 00 20 4	
1020849 KY006118	plants	Plant and Soil Sciences	Hunt, A	HATCH	10/10/2019	09/30/2024	2019-10-10 - 2020-09-30 A	ACTIV
	Quantifying the pathways of							
4024200 10/005440	pedogenesis in the context of past	District Collection	Sharan I Sharan I a	LIATOU	42/05/2040	00/20/2024	2040 42 05 2020 00 20 4	
1021290 KY006119	climate cycling in Kentucky Soil, Water, and Environmental	Plant and Soil Sciences	Shepard, Christopher	HATCH	12/05/2019	09/30/2024	2019-12-05 - 2020-09-30 A	ACTIV
	Physics to Sustain Agriculture and			HATCH/MULTI-				
1024562 10/006420	Natural Resources	District Collection	Minnedonath Ole	STATE	44 /25 /2040	00/20/2024	2019-11-25 - 2020-09-30 A	۸ ــــــ:.
1021563 KY006120		Plant and Soil Sciences	Wendroth, Ole	STATE	11/25/2019	09/30/2024	2019-11-25 - 2020-09-30 A	ACTIV
	Beneficial Use of Residuals to Improve							
1021567 (20006121	Soil Health and Protect Public, and	Diant and Call Calanasa	Danasia Elias	HATCH/MULTI-	12/05/2010	00/20/2024	2010 12 05 2020 00 20 4	۸ ــــــ:.
1021567 KY006121	Ecosystem Health Evaluation of corn hybrids for use in	Plant and Soil Sciences	Dangelo, Elisa	STATE	12/05/2019	09/30/2024	2019-12-05 - 2020-09-30 A	ACTIV
1021845 KY006122	•	Plant and Soil Sciences	Kenimar, Richard	натсн	12/12/2019	09/30/2024	2019-12-12 - 2020-09-30 A	۸ ــــــ:.
1021845 KY006122	Kentucky	Plant and Soil Sciences	Kenimar, Richard	HATCH	12/12/2019	09/30/2024	2019-12-12 - 2020-09-30 A	ACU
	Management and Environmental							
	Factors Affecting Nitrogen Cycling and							
	Use Efficiency in Forage-Based			HATCH/MULTI-				
1023622 KY007091	Livestock Production Systems	Plant and Soil Sciences	McCulley, Rebecca	STATE	07/09/2020	09/30/2024	2020-07-09 - 2020-09-30 A	Activ
1025022 11007051	Reduction of Tobacco-specific N-	Traine and Son Sciences	miceancy, nesceed	577.12	07/03/2020	03/30/2024	2020 07 03 2020 03 30 7	
	nitrosamines (TSNA) and Benzo [a]							
1014909 KYOBAILEYWA2	pyrene (BaP) in Dark Tobaccos	Plant and Soil Sciences	Bailey, W	STATE	12/01/2017	09/30/2022	2019 2019-10-01 - 2020-09-30 A	Acti
1011303 11103/1122117/12	py (22. / 22	riant and son selences			12/01/2017	03/30/2022		
1009920 KY0MILLER2	Tobacco Breeding and Genetics	Plant and Soil Sciences	Miller, R	STATE	07/01/2016	06/30/2021	2018 2018-10-01 - 2019-09-30 A	Activ
	Dynamics of Nitrogen Fertilizer							
	Transformations in a No-Tillage							
1018389 KYKY006111	Agroecosystem	Plant and Soil Sciences	Matocha, Christopher	HATCH	01/01/2019	12/31/2021	2019 2019-10-01 - 2020-09-30 A	Activ
				HATCH/MULTI-				
1019259 KYKY006116	Nanotechnology and Biosensors	Plant and Soil Sciences	Tsyusko, Olga	STATE	03/28/2019	09/30/2021	2019 2019-10-01 - 2020-09-30 A	Activ